

THE KANSAS INDUSTRIALIST

Volume 37

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Number 20

DOUBLE THE GRAIN YIELD

CULTIVATION WILL DO IT WITH CROP ROTATION AND MANURES.

Pure Seed, President Waters Says, is the Important Item, but Farmers Must Make Allowances for Climatic Conditions—As to Live Stock.

"We shall have to double our output of grain within the next half century," said President Waters a few days ago. "This means that we must, practically, double our acre yield. Of course, a part of this increase must come from better soil culture, more systematic crop rotation, better utilization of our manures, etc., but a considerable part of it must come from planting better seed."

"With two varieties of corn, grown side by side, under identical conditions of soil, sunlight, moisture, cultivation, etc., it very often happens that one will produce as little as twenty-five bushels an acre, while the other may yield a hundred bushels."

NO TWO THE SAME.

"Indeed, it has been found repeatedly that the seed from two ears of the same variety of corn, grown under similar conditions, will show a difference in yield of forty bushels an acre.

"Similar differences with respect to the yield of the other farm crops have been just as frequently noted.

"As yet there are no half-dozen standard varieties of staple farm crops that are widely adapted and possess the superior merit that the standard beef and dairy strains of cattle possess for their particular uses.

"Upon reflection, it is to be expected that this would be true, for our live stock has been improved for more than a hundred years, and our farm crops scarcely ten years."

The problem, then, is how to seize upon these high-producing strains and fix them into varieties that will transmit their producing qualities. But it has already been found that farm crops do not have the wide climatic adaptation that improved live stock have, and it will be necessary, before success is reached, to find strains especially adapted to the different soil types and the different conditions of rainfall, temperature, sunlight, etc.

PEDIGREE KHARKOF.

When strains possessing peculiar adaptation to a particular area are found, it will be the business of the state and of those interested in the public welfare to encourage the most general use of such strains within that area.

For example, the Kansas State Agricultural College has produced and sold to the farmer, within the last four years, more than 15,000 bushels of pedigree seed of Kharkof wheat, a variety that has proved to be an excellent producer in the hard winter wheat region of Kansas, as well as one of the very best of the milling sorts. This wheat has proved so profitable that the farmers who bought seed from the college have, through the co-operation of the college, sold their output as seed, until a conservative estimate shows that over two million acres, or nearly one-third of the total area of wheat of the state, was sown to this variety last fall.

DOG DISTEMPER DAYS.

Dr. Goss Describes Some of the Symptoms—No Positive Remedy.

Do you know whether your dog has distemper or not? If you don't, here are a few symptoms: Discharges from the eyes and nose, languid appearance, loss of appetite, violent coughing. In some cases small eruptions of the skin appear on the inside of the thighs and front legs. The animals usually are subject to vomiting spells. The

disease affects the digestive or the respiratory tract and sometimes the nervous system.

A peculiar thing about distemper in dogs is that a pure-bred dog is much more susceptible to the disease than are mongrels. The disease also usually proves to be fatal for the pure-bred dogs.

After a dog has been exposed it takes from a week to ten days for the disease to develop. There is no absolute remedy for distemper according to L. W. Goss, assistant professor of veterinary medicine in the Kansas State Agricultural College. Cures are rare. The disease never spreads to any other animal, as the dog distemper is strictly a dog disease.

Why a Physics Building?

Because more than 750 students are crowded into laboratory space intended for only 276! Chemistry and physics in one structure! Warm days coming. How would you like to be cooped up that way?

THINKING OF SWEET PEAS?

Easily Grown in this Latitude, but First Let the Frost Go.

Sweet peas are among the prettiest and sweetest flowers and can be easily grown if care is taken in selecting the seed and preparing the soil. The first thing to consider is good, fresh seed. After choosing your location, dig a pit from 12 to 15 inches deep. When frost has left the ground plant the seeds in rows—double rows are preferable about two inches apart—and cover them with two or three inches of soil, free from lumps. The pit should be left open until the plant comes up, and filled up gradually as it grows. In this way, a long, strong root is developed. This is necessary to make a hearty plant that can withstand the summer heat. If the weather should be severe when the young plant first comes up, the pit should be partly filled with dry leaves to protect the tender vine until warmer days appear. For convenience and beauty, different varieties should not be mixed. The rows should be about 2½ feet apart for convenience in cultivation. They do not require much cultivation, but should be kept free of weeds. They do need plenty of sunshine.

Sweet peas are slow to germinate. If planted late, they should be soaked in warm water. With proper care, they will develop into pretty vines from seven to eight feet high. These vines should be supported with brush or a trellis. Keep the blooms picked and the vines will be a mass of flowers from June to October. Sweet peas, grown last year in this way in the gardens at the Kansas State Agricultural College adorned the girl graduates in June and the same vines brightened the freshman's college career in October.

Sweet peas are useful as well as ornamental. If you desire a pretty border for your flower garden, or wish to hide some defects in the garden fence or porch trellis, there is no prettier or more appropriate decoration.

IN ONE PICTURE 2,335.

The Student Assembly, Wednesday, Was Photographed on the Lawn.

At the request of the class-book committee there was no student assembly Wednesday. Instead the students gathered in front of Anderson Hall to be photographed for the class book. As President Waters said in chapel Tuesday, few persons living outside of Manhattan realize the large enrollment of this college, and a picture of 2,335 students should give a good idea of the work the college is doing.

LIGHT, HEAT, BATH, \$865.

NOT A VERY COSTLY WAY TO MAKE A FARMHOUSE LIVABLE.

Of Two Investments, Home Comforts and a \$1,600 Motor-Car, This Rural Citizen Prefers the First—The Barn, Also, is Lighted.

Did you ever think what a wonderful change a few hundred dollars judiciously spent would produce in the farmhouse? This is how a Marshall county farmer placed all the modern conveniences of the city dwelling in his farm home for \$865.

The first improvement installed was the water-plant. This included a pres-

Engineers was held last Tuesday night. Papers prepared by Carl Breese, V. V. Detwiler and D. G. Roth were read and discussed. The association hopes in the future to obtain expert engineers to lecture in the regular meetings held the first Tuesday in every month. The meetings are public. Only junior and senior electrical students can join the organization.

IT'S A CLASSICAL PROGRAM.

The Symphony Orchestra's Concert Has Been Set for Feb. 28.

This is the program for the second annual concert of the Kansas State Agricultural College symphony orchestra, to be given Tuesday, February 28, at the Marshall Theater:

Andante et Scherzo.....David R. H. Brown

Peer Gynt Suite.....Grieg

(a) Morning

(b) Ase's Death

(c) Anitra's Dance

Selections from the "Mikado".....Sullivan

Sextet from "Lucia" (by request)....Donizetti

Hunting Song—"The Horn".....Flegier

Olot Valley

Woodland Sketches.....MacDowell

(a) To a Wild Rose

(b) To a Water Lily

(c) Whispering Flowers

Ballet Music from "Faust," Suite II....Gounod

(a) Entry of the Trojan Maidens

(b) Solo Dance of Helen

(c) Bacchus and Finale

HONORED EDWIN MAC DONALD.

Large Crowd Attended the Literary Societies Dinner Tuesday Night.

The Webster and Eurodelphian literary societies gave a dinner in honor of Edwin MacDonald, Tuesday night, in Woodman Hall. J. E. Kammerer, professor of economics and director of public speaking, and E. P. Johnston, assistant in public speaking, were guests of the societies. A five-piece orchestra played. The hall was decorated with the Eurodelphian and Webster colors. About 120 persons were present.

Debating Finals To-night.

Unusual interest is being displayed in the debating finals which will be held to-night. Doubtless some of this interest is because every literary society is to be represented. At this contest the two teams will be chosen to debate with Washburn.

The Value of Expert Advice.

In 1898 Kansas had 7½ million bearing apple trees. In 1909 it had only 6 million.

From 1904 to 1910, with the exception of one year when the whole crop, practically, was a failure, the average yield to the bearing tree was about ½ bushel.

The agricultural college's spraying work last summer in orchards of Southeast Kansas increased the yield an average of 4 bushels a tree.

Cultivation of the right kind, pruning properly, doing as the college directs, will put Kansas in line with its apples.

extra piping. This made the lights, complete, cost \$225.25. An automatic lighting device enables one to flood the house or barn with light, by merely pushing a button. It takes about fifteen minutes, once in three weeks, to put a fresh charge of carbide in the generator, which is all the work these lights require. The cost of lighting averages \$2.50 a month, little more than the former oil bill, with the barn well lighted besides.

This same farmer paid \$1,600 for a motor-car, from which the entire family derive much pleasure. But great as this pleasure is, it cannot be compared with the many comforts every member of the household receives from an investment of little more than half this amount, spent on improving the home.

The Electrical Engineers.

The February meeting of the Kansas State Agricultural College Branch of the American Institute of Electrical

THEY'RE LEARNING TO TALK.

Excellent Practice for Students in the English Classes—Many Subjects.

It is not easy to do it, but the person who can speak extemporaneously and to the point, and then stop when the point is reached, has a talent that is worth having. The students in several of the English classes are receiving a little practicable training in this kind of speaking. The subjects are of their own choosing and, consequently, are those in which they are interested; not dissertations on the Darwinian theory or the proximity of Mars, but plain, practical, every-day talks on interesting questions. An engineering student will explain the workings of a gasoline engine, and a student in agriculture will speak about some phase of that subject, and so on.

LET THE BABY SQUALL.

A HEALTHY CHILD SHOULD WAIL ONE HOUR EVERY DAY.

W. A. McKeever, Professor of Philosophy, Tells the Home Economics Class How to Rear Babies.

"Let the baby squall, by all means; it needs to cry and it must cry, and if you stuff it with something to eat whenever it squalls, you are a foolish parent. It should yell at the top of its voice for at least an hour every day."

This came from W. A. McKeever, professor of philosophy in the Kansas State Agricultural College, in a talk to one of his classes composed principally of girls in the home economics course. In this course the young women are taught everything about home making.

Before this class, that morning, came the question of the misunderstood baby, the "problem" before the World's Mothers' Congress. Prof. McKeever has studied child life and preached his doctrines of child training from Denver to Boston. The discussion at first was from the standpoint of psychology, but later it took another turn.

FOOD, ALWAYS FOOD.

"Why is it," continued Prof. McKeever, "that mothers, in general, believe that when a baby cries it wants food? Nearly every mother thinks that, so when her baby cries the first thing she does is to apply a dose of milk for the wail. It makes no difference whether baby has just dined or not—if it cries it must be fed. If it cries again it must be fed some more. Then perhaps its head aches because it has been fed too much, and it cries again. Once more it is fed. It is by this time literally stuffed. Its system will soon be out of order, and then it will be a subject for disease."

"You see that's wrong, very wrong. Suppose the corn on your toe gave you pain and it was impossible for you to tell what ailed you. And then somebody came along and made you eat a big meal.

IT NEEDS EXERCISE.

"It is just that way with the infant. Half of the time the baby cries not because it is hungry, but because it needs exercise. Nature intended that it should develop in that way."

"Squalling is a baby's calisthenics—the best kind of exercise, too. It is this crying—the real, hard crying, properly known as squalling—that sets the blood flowing lively through its body."

"Ever notice how red a baby's face gets when it is squalling? Shows that the blood is being pumped vigorously. Why, a baby ought to squall an hour every day—a grand total of an hour a day, I mean, not an hour at once."

"So don't run and stuff the baby with milk or take it up in your arms every time it cries. Let it cry itself healthy."

However, let it be known that Prof. McKeever has only three children. Two have passed the squalling period and the third is a particularly well-behaved baby with a fine respect for its father.

A Story Writer Here.

Miss Louise Fitch, editor of the *Trident*, the official publication of the Delta Delta Delta sorority, was a visitor at the college last Thursday. Miss Fitch is a sister of George Fitch, the writer of the "Siwash College" stories which have been appearing in the *Saturday Evening Post*.

Gave the Museum a Tooth.

A mastodon tooth was presented to the college museum this week by L. B. Kirk, who found it a year ago a few miles from Manhattan.

THE KANSAS INDUSTRIALIST

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PROF. C. J. DILLON Managing Editor
DR. J. D. WALTERS Local Editor

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AS TO TABLE MANNERS.

When a hundred fine, manly seniors ask for instruction in table manners the editors and the paragraphers of the country, from Baltimore to Bird Center, rear back and roar with laughter. Funny, isn't it? Did anyone set up a hullabaloo when the farmers of Wyandotte county organized a dining club? Nothing was said then about "sword swallowing" feasts or the delights of lapping up coffee or tea from the saucer. It was all very excellent. The farmers, long may they wave, might eat pie from the pan and muss their vests and ties until the cows come home and not a sarcastic word would any funny man dare to say. Sure. Father must be encouraged to meet and eat and greet and listen. Three cheers for father. Let him eat in any old way, no matter how much it worries the remainder of the family.

But just let the son, the future hope of Kansas, express a desire to know how to check up his supply of silver at a formal luncheon or dinner, and what a chorus of yawns is heard! With joyous acclaim the gleeful writers of humorous columns turn to the pleasant pastime of working off a lot of shop-worn, curbstone comedy. References to the difficulty of balancing peas on one's knife, of identifying tea and *consomme en tasse*, seem to give especial relief. How many of these good fellows could go with their wives to a banquet—a real, formal banquet, you know—and not embarrass them before the affair was over? How many men, not in the country towns, but right in the *large* cities, like Topeka and Emporia and Newton or Lawrence, could order a meal intelligently and then eat it without slopping over something or finding a lot of superfluous silver when the check comes round? If it were not for their wives, two-thirds of these well-informed humorists couldn't serve a family meal without making a bad break of some kind if "company" was there.

Why should girls have a monopoly of this refining, elevating instruction in eating and controlling their hands at the table and learning to put napkins where they belong—not around their necks? Why should not the young men know these things—young men who never would know, possibly, or at least not for years? The course the men seniors have asked for in table manners is one of the best ideas of the new year.

EGGS DOWN TO 16 CENTS!

Let joy be unconfined. Let family men spring blithely down the sunlit streets carolling happy songs and, perchance, turning handsprings. Eggs are down to 16 cents and butter to 28! Think of it, you who were gloomy and despondent only a few months ago when bacon, at 45 cents—sliced—eggs at 35, and butter at 38 and 40 cents, were stuff of which dreams are made. Think how you had fits of the doldrums and couldn't see any way out of the hole and your wife spent too much time reading freak articles about how to feed five persons for \$16 a month by doing without lard or baking-powder or some such thing! Doesn't it make you feel young again? Isn't life worth living after all?

But probably the best part of the whole business—an unholy pleasure,

perhaps, but no less delightful—is the story which shows that the cause for the sudden slump in the cost of living is due primarily to the over supply in the storehouses, especially as to eggs. These eggs cost the smart alec speculators much more than they ever will receive for them. Indeed, this class of eggs was going at 13 cents a dozen in the big market centers last Wednesday. It seems a bit of Providence—it makes the weary digger for dollars grin—that about the time these speculators were well stocked with their boarding-house eggs the hens of the land began to lay regularly. Grocers and produce exchanges were joyously contemplating the profits from butter at 30 and 35 cents when someone noticed that cows, prospering in the sunshine of a mild winter, were giving more cream. That meant more butter, and more butter meant less profit. So the speculators suffered, and small pity for them at that, as Mr. Dooley would say. Of course a prolonged spell of cold weather would turn these prices up again, and they who eat regularly would again deny themselves. But for the present let joy be unconfined; let each of the children have a whole egg; let the entire family eat eggs, and let the shells fall where they may.

HAIL! THE SOY-BEAN.

Think of it, you epicures: The humble soy-bean, used in Kansas to enrich the soil, the lowliest but most important task for vegetation, is served in the gilt-edged cafés of Paris as one of the principal side dishes. Indeed, the Parisians are using the bean in many varied and appetizing ways as the chief attraction of a meal. And all this—this triumph of culinary skill—has been given to Paris by a famous Chinese cook. Soy-beans in Paris, where jaded appetites are supposed to be the rule!

With the soy-bean as an item for the menu, it isn't hard to imagine the future of cow-peas, alfalfa meal or Kafir-corn. The idea might even be enlarged to include grasshoppers, which, in Arabia, have long been used as meat by the Gum-Arabics. Some one in Topeka has used alfalfa meal for bread and cake and cookies, and very successfully. Kafir-corn came originally from Africa, where the natives depended upon it as Mexicans depend upon corn or maize for their *torillas*. Are the people neglecting the possibilities of important food stuffs? Why should not the department of domestic science investigate these problems? If cow-peas are delicacies, the world has a right to know it.

EDITORIAL WRITERS OF 1911.

The recent anniversary of Horace Greeley brought sharply to the attention of advanced students of journalism one feature: The lack of individualism in present-day editorial staffs. Young men studying the theory of editorial writing have been engaged in looking over the field for 1911 in this department of journalism—and they have found little in the history of Horace Greeley's day to help them in the problems of the present. When Greeley was hammering his enemies in language that few papers of to-day would use, the country had fewer than 5,700 publications. The forceful editors, men known everywhere, were to be numbered on the fingers of one hand, with fingers to spare. There was, practically, no competition.

But how swift is the race to-day! How few are the papers dominated by one strong personality. One thinks of the commanding figure of Henry Watterson when Louisville or the *Courier Journal* is mentioned. It is impossible to mention the Kansas City *Star* without associating with it the fine personality of William Rockhill Nelson. And yet the methods of these two are wholly different. Watterson writes; Nelson dictates, outlines, reads and commands, but seldom touches pencil to paper, editorially. There are big minds in control of papers like the *Baltimore Sun*, the *Chicago Tribune*, and some of the dailies of Buffalo and Boston and New York and Philadelphia—but who can name them? The force behind the

A Golden Text.

And the mean man shall be brought down, and the mighty man shall be humbled, and the eyes of the lofty shall be humbled.—Isaiah 5:15.

throne in these days of editorial writing is buried in the anonymity of one man who may not write a word in a year. The New York *Herald* has no such standing to-day as it had when James Gordon Bennett astounded the country by printing the news within a few days of its happening.

One sees more individualism in the press of Kansas than in almost any other state of the union. Where can you find a group of editors more widely known? William Allen White, Ewing Herbert, Henry J. Allen, W. Y. Morgan, Ed. Howe—as was—Victor Murdock, Joseph L. Bristow! Is there a group anywhere in the country commanding so much power one way or another?

THE STUDENTS' WORKSHOP.

If there is one department on the college campus of big importance to every student it is the library. This building, more than any other, is the study, the resting place of every boy and girl at some hour of the day. It is opened at 7:30 o'clock every morning and it is, almost invariably, the last building closed in the evening. Without the library the college could scarcely exist, and the students would walk miles to their rooms instead of studying in comfort where references are at hand. Every department draws upon the library for help and inspiration.

As a result of the growth of the college and the rapid increase in the enrollment, the library equipment has long been inadequate. It should be improved, and every addition should be in keeping with the future of a great institution as nearly as that future can be comprehended. The board of regents has asked the legislature for \$7,000 for the library in the next two years, and the same amount for 1912 and 1913. Horses and cows and hogs and machinery are important, but they can be studied only with books. No more convincing lesson in this respect could be presented than the spectacle of hundreds of students entering the library early every morning, long before many persons are out of bed. It is the students' workshop and entitled to generous support.

GIVE YOUR FARM A NAME.

Why don't you advertise, Mr. Farmer? Get a name for your farm and then advertise your farm by that name. Suppose you choose the name, Fairview. Then buy under the name of Fairview, sell under the name of Fairview, have your butter stamped Fairview, print Fairview on your berry boxes, and have your eggs marked Fairview, and paint Fairview on your wagon. It won't be long before the name of your farm is known and people will be calling for your products. The town merchant advertises, and the farmer can just as well advertise his butter and eggs and produce.

A name individualizes your farm. People will know that they are buying your produce, and if it is worthy produce they will keep on buying it and will call for it by the name of your farm. Of course you will have to keep your things first class in every respect, but you'll get the best prices for it. Let people know that your standard for produce is high.

This idea is not a mere fancy. It has been tried with excellent results. In 1893 Mr. and Mrs. W. L. Cotton, just married, decided to try this plan. They had a 90-acre farm in Wabaunsee county and they chose the name of Bonnie Brae for the place. Quite a Scotch effect, wasn't it? That was just what they wanted, for they were Scotch, and anyhow the name, Bonnie Brae, attracted attention. They had a butter print made with a thistle and the words Bonnie Brae upon it. Then they stamped their eggs Bonnie Brae, and Bonnie Brae was printed on their berry boxes. They meant to let people

know that their farm was named Bonnie Brae. Other persons did know of it, too, and Bonnie Brae products were in demand. In one season \$150 worth of raspberries and blackberries from this farm were sold. This system of advertising is still used at Bonnie Brae Farm.

This idea is not entirely new. Every farm in England and Scotland is named. Many stock farms in Kansas are named, but few produce farms are so designated. It's easy enough to get a name. Fairview, Oak Lawn, Walnut Grove, Lakewood—the variety is almost inexhaustible. C. G. W.

THE ORIGIN OF CURFEW.

Everyone, Especially in Childhood, has Heard this Peculiar Word.

If language is fossil history the word "curfew" contains a whole chapter in itself. In the Middle Ages, when the fire was built in a hole in the floor and the smoke passed out through a hole in the roof, if at all, there was a law in effect over most of Western Europe, requiring that at bedtime all fires should be covered and all lights put out. William the Norman, in 1061, called an assembly at Caen of bishops and barons, who passed a law providing for the ringing of a bell at nightfall, as a signal for prayer and putting out of fires, and requiring that after the ringing of this bell no one should leave his home to go upon the streets. Thus originated the word curfew (from *couver*, cover, and *feu*, fire).

When William went to England in 1066 he carried this regulation with him. There it remained in force until 1100. It was a good thing, as at that time London was only a cluster of wooden hovels. The Saxons resented the law, asserting that it was aimed at their liberties. Since 1568 the impression has been general that William made this law to control his Saxon subjects, and that it was really intended to prevent their assembling at night to conspire against him. It now appears that this is not true.

The law was soon repealed, and by the beginning of the thirteenth century the original intent of the ringing was forgotten; but the custom of ringing a bell at nightfall remained. In the fourteenth century a part of the old law was revived in the provision that all men found on the street after "corfu" should be arrested. Chaucer, in the same century, used the word in the modern form in the "Canterbury Tales," but the spelling has varied widely since then.

In 1649 Cromwell had a law passed that none should go on the streets after curfew. In America the word has been used since an early day, but the first law was in effect in Montgomery, Alabama, in 1850. That law required that no negro should go on the streets after 9 o'clock.

Nowadays the word is used most often with reference to a municipal regulation requiring all children to keep off the streets after a certain hour. The signal is sometimes the ringing of a bell, sometimes the sounding of a whistle.

L. H. B.

WHEAT VARIETIES AND BREAD.

Prof. Fitz, Testifying in Trial, Gives Housewives Valuable Information.

L. A. Fitz, professor of milling industry, testifying Monday in the trial of the Hall-Baker Company, at Kansas City, explained one thing that has puzzled many a housewife: that hard wheat and soft wheat must be handled differently in baking bread.

The housewife does not always know just which variety she is handling, and so if the bread does not turn out well the grocer is blamed. After a few trials the housewife is able to bake successfully with either variety.

The Hall-Baker Company is charged with violation of the Pure Food law.

Dr. Walters Spoke.

Dr. J. D. Walters, professor of architecture and drawing, addressed the Riley County Educational Association February 11. His subject was: "The Public School System of Switzerland."

The Sower.

Worn with thy toil that seemeth unavailing,
Fear not, thou sower, most sure is thy
reward.
Wait till the end, for justice is unfailing,
Working the plans of Love, the heavenly
Lord.
Thine not to labor lusterless and weary
Toil spent for wages and reward of daily
bread;
Nor thine to scheme with selfish thought and
dreariness,
Holding an abundance whereof no poor
are fed.
Sower thou art now—foresee the joy of har-
vest,
The hungry shall be fed with what thy
hands supply.
Scatter free thy good seed, though for lack
thou starvest—
Love's hundredfold of increase thy heart
will satisfy.
—William P. McKenzie,
In the Christian Science Monitor.

SUNFLOWERS.

The Salina Daily Union calls it "Sufferage."

How many a heavy heart grew light when the rain came Wednesday night. And Thursday, too.

It's all well enough to have "Do It Now" stuck up in your office, but take it down quickly if your visitor seems peevish.

Housewife.—You should take the domestic science course. A girl who doesn't know how the bread gets inside the crust is in a bad way.

Anxious.—You are very much mis-
taken, Edythe. The recent stories in
THE KANSAS INDUSTRIALIST about
hams had no reference to pork barrels.

A Chicago paper blames the inventors for the present objectionable hat pins, under the head-line, "Long Hat Pins Charged to Men." And the hats, also.

W. A. Clark, the pink-whiskered copper millionaire, is to run for the United States Senate. This should relieve any restriction in the circulation of currency.

The Mound Valley Journal is printing a list of subscribers who have paid the editor what they owe. The management regrets it hasn't space to run those that didn't pay.

Edward B. McLean, of Washington, has paid \$300,000 for the Hope diamond, and will have to pay several hundred dollars a year to guard it. Why not put it in the family Bible?

A Chinese chef in Paris is teaching Frenchmen to eat soy-beans in several extremely appetizing forms. These beans are used for another purpose in Kansas, familiar to all good farmers.

President Taft says the proposed Panama Exposition in San Francisco will cement America's friendship with Japan. The cement may get a crack or two in it out there when least expected.

Just think of it, you copy readers in newspaper offices all over this fair and happy land: the *Delineator* has offered \$6,000 for stories. Think of the junk pile and be glad you're where you are.

The deposed Manuel of Portugal will now get his laundry and cigarettes regularly. The new government has granted him a pension of \$3,300 a month. The safest place for Manuel is in a silo.

Political enemies of Champ Clark are drawing attention to the fact that the next Speaker's real name is James Beauchamp Clark. But even this isn't so bad as some of the names applied to Cannon.

Some Eastern papers are frothing over what they call a demand for "rational golf." The *Kansas City Star* wants the toe hold barred in wrestling. Next thing the Blues will be asking a handicap of eight runs.

The *Christian Science Monitor* prints mighty little crime news. But its editor displayed some knowledge of a great American game, late last month, when the paper announced that David Graham Phillips had "passed."

A fine, ornamental, lifelike picture of Uncle Joe Cannon appeared last week in the Hutchinson *Gazette* over the line Benjamin Ide Wheeler, head of the University of California. Why not use Douglas, the Shoe Man, or Wiggles, the Gum Merchant, or even Lydia Pinkham?

LOCAL NOTES.

The Delta Rho fraternity has moved into its new house at 615 Leavenworth Street.

Major Holsinger, a former student, was here recently and spoke to one of the classes in horticulture.

M. W. Knapp, of Leavenworth, Kansas, who was a student here last year, is visiting friends in Manhattan this week.

Miss Flora Knight and Miss Estella Boot, assistants in the English department, have taken up their work after being ill.

D. O. Stone, assistant in civil engineering, has been ill with the quinsy. The report that he had the scarlet fever was erroneous.

C. H. Torrence, who was a student in the Kansas State Agricultural College last year, is now a sophomore in the Montana Agricultural College.

The English faculty met Thursday night at the home of J. W. Searson, associate professor of English. Dr. Brink read a paper on Goethe's "Faust."

Mrs. Henrietta DeMoss, of Oklahoma City, and J. C. Johnston, of Wellington, Ohio, are visiting the family of E. P. Johnston, instructor in public speaking.

F. A. Thackrey, a student here in the early nineties, has been renewing acquaintanceships about the college. Mr. Thackrey in teaching in the Indian schools in Oklahoma.

L. L. Dougan, a student here in 1906-'07, was visiting college friends this week. Mr. Dougan has been successful as an architect in Oklahoma and stopped here on the way to the Pacific coast, where he expects to locate.

William H. Andrews, head of the subfreshman department, has sent out letters to the members of the faculty who have subfreshmen in their classes. These letters ask for reports of the number of subfreshmen in every class and the number of subfreshmen receiving C's or F's at mid-term.

ALUMNI NOTES.

W. P. Tucker, '92, writes from Acadia, Florida, that he is much interested in the fruit business.

Invitations have been sent out announcing the marriage of D. E. Lewis, '10, and Miss Helen Westgate, '07, February 22.

Carl E. Rice, '97, is enjoying life as an immigration agent at Manila, P. I. His special work is acting as judge of rejected immigrants.

Mrs. Elizabeth Dorman, wife of R. N. Dorman, '04, died January 21 at their home, 1525 N. Monroe Street, Topeka, Kansas. Mrs. Dorman left two children, one a baby two weeks old.

The alumni and former students of Topeka will meet socially March 4. A former college quartet, consisting of Albert Kittell, Ralph Hunter, John Carnahan, and F. C. Harris, will be one of the features of the program. A large attendance is expected.

C. P. Hartley, '92, physiologist in charge of corn investigations, of the Department of Agriculture, Washington, D. C., is convinced that it will be only a matter of a few years when it will be possible to double the present average of that crop in the United States, and this without increase of labor or expense. Improvement in quality of seed, improvement in condition of soil, and improvement in method of cultivation, are the means by which this increase will be accomplished.—*The Farm World*.

CLASSICAL MUSIC FOR ALL.

Love for Music Exists in Almost Every One, Says Prof. Brown.

"Every one, to some extent, has a love for music in some form," said R. H. Brown, assistant professor of music, in an address on "How Can Musical Taste Be Acquired" given in chapel Tuesday morning. "To cultivate taste one should determine to discover the beauty and meaning in

all the writings of poets, authors, and composers. To many, the words 'classical music' signify all that is difficult and uninteresting.

"It does not make much difference who wrote the piece; if it is correctly written and lasting, it is classical.

"The so-called 'popular music' is a detriment to the development of a good taste for music. The rhythm of this music is decided, the words usually sentimental, and the piece easily understood; so the public does not trouble itself to understand deep music." No musical composition will live long if it does not embody in its structure the fundamentals of musical art. "Often proficiency in music is measured by one's ability to sing or play some instrument; seldom by the ability to listen with true appreciation to the performance of others.

"There are opportunities at this college for the study of good music. Many of the church choirs have good music, the choral union and orchestra give a chance to study the best music. We should all avail ourselves of the opportunities and develop a taste for music if we have not already done so."

PROTECT THE QUAILS.

Bob White Eats 100 Potato Bugs and Several Thousand Weed Seeds Every Day.

About one-fourth of the cultivated crops of the United States are destroyed by insects every year! This is the estimate of the United States Department of Agriculture. Every effort should be made to reduce this loss. One of the important agents of control is the insect-eating birds. These birds should be protected in their war against the farmers' enemies.

The quail is one of the most important insect destroyers. From June until September Bob White's meals consist of over one-third insects. And he prefers the insects that are the farmers' worst enemies. He is especially fond of potato bugs, wire worms, cut worms, and grasshoppers.

Quails have been examined that contained over one hundred potato bugs in their crops. They can be depended on to kill from fifty to one hundred potato bugs or grasshoppers every day if the insects are abundant.

When the insects are in their winter quarters Bob White continues to aid the farmer. His food from September until April consists largely of weed seed, and he devours over sixty species.

He consumes about a half ounce of weed seed every day. The crop of one bird that was examined contained 250 seeds of smart weed, 500 of red sorrel, and 1,200 of rag weed. This was just the amount consumed at one meal, as quails digest their food very rapidly and would eat much more in the course of a day.

Thus the quails aid the farmers in the fight against the two great pests, insects and weeds. Every landowner should see that the law which was made for their protection is enforced.

CARE FOR THE MACHINERY.

Order the Repairs and Put Them on the Implements in the Winter.

Proper care of farm machinery will save you 33 to 50 per cent. In order for a machine to last a long time and do its best work it must be well cared for. This can be done only by system.

As soon as an implement has done its last work for the season it should be put in a shed. All bearings and unpainted surfaces, such as the share and mold board of the plow and the shovels of a cultivator, should be covered with a thick oil that will keep them from rusting. When the first rainy day comes the implement should be cleaned and examined and notes taken of repairs needed. These repairs should be sent for at the first opportunity. When they are received they should be taken to the machine shed and put in the tool box of the machine. When winter comes and time is not so valuable the machine may be put in first-class condition. In this way the farm machinery will be in good condition at the beginning of the season. With a little care it will generally go through the season in good condition and save a great deal of time and trouble for its operator.

HERE'S A BOOK FARMER.

CHARLES JOHNSON, OF ALERT, USES K. S. A. C. METHODS.

Graduating in 1905, He Went Home and Became a Force in the Community—Agriculture that Brings in Profits—Clean Fields.

A clean and attractive farm, a new house, thoroughbred live stock and a system of crop rotation is the result of one man's college education. In the spring of 1905 Charles Johnson was graduated from the Kansas State Agricultural College and returned to the home farm near Alert. He has an excellently equipped and profit paying property. With his farm under a system of crop rotation he is getting results that are bringing dollars into his pockets and attracting the approving attention of his neighbors. Moreover, he didn't forget the father and mother who made it possible for him to go to college. He built a cottage in the yard in which stands his home, and there they live, where he can care for them.

Mr. Johnson's farm methods are scientific. He has the best field of alfalfa in the county. His hogs are thoroughbreds. His fields are clean and his fences in repair. He is proving that modern methods pay.

Mr. Johnson takes an active interest in everything that he believes is for the good of his community. He is a director of the school board, superintendent of the Sunday-school, belongs to a church and takes a leading part in its meetings and in its work. He is broad enough to be interested in more than one line. He was a leading spirit in the district fair held last fall at Alert. He not only acted as judge and awarded the prizes, but he furnished the money that made many of the prizes possible.

But with this young farmer it is not all work and grind. He umpired the ball game at the Alert fair; he owns a motor-car and attends the summer chautauquas and occasionally he speaks in public gatherings. Through his influence, in leading and not driving, the young people and the old people around Alert are being brought together and made to feel that they have a common interest.

And all this happened seven miles from a town.

BETTER GRADE YOUR CORN.

Not Much to do This—A Little Work of This Kind Pays.

Remember the poor seed-corn you planted last spring and the poor stand of corn you had? The thing for you to do is to get out that old grain grinder, or if you have none send for one—a new one. They cost only about \$10 or \$12 and will pay for themselves several times over in the first year, on a field of from forty to sixty acres. With all the spare time that farmers have in January and February, not one should make the excuse that he did not have time to grade his seed-corn.

Two seed-corn graders tested at the Kansas State Agricultural College for efficiency tested 55 per cent and 69 per cent, respectively. These percentages mean that that was the amount of good corn in every bushel, while there was anywhere from 20 per cent to 45 per cent imperfect in some way.

With the Hero, the tester used 11½ pounds of corn. Of this, 4 pounds was too large and 1 pound too small. He saved two grades from this experiment, large and small. The large grade weighed out 3½ pounds and the small, 3 pounds. With the Perfection grader he used 8 pounds and saved three grades—No. 1, No. 2, and No. 3. The weights of these were 5½, ½, and 2 pounds, respectively. He kept no account of the poor corn, other than the per cent. This grader tested out 69 per cent.

Now, with all the trouble taken to judge seed-corn, and knowing, as farmers do, that not all the corn on an ear is perfect, why not take the extra trouble and save money by a little extra work in spare moments? Half the farmers do not realize how large a per cent of imperfect corn one of these lit-

tle machines would eliminate from the seed they sow in a single season, or that every grain eliminated would be replaced by a perfect kernel. As corn breeding works out along the same principle as animal breeding—that is, that like begets like to some extent—why should farmers not try to have the seed as nearly perfect as possible?

AN ONOMATOPOETIC WORD.

In this Way Prof. Beall Refers to Whist—Its History.

Whist is an onomatopoeic word; that is, its sound suggests its meaning: "be quiet." It is very closely related to *hist* and *hush*, which have the same meaning and the same fundamental sound, the sibilant, hissing sound: *sh, st*. The Cornish have the word *huist*, and the Danes have the word *hys*, with the same significance.

As to the origin of the noun *whist*, there is some difference of opinion. If *whist* really is the name of the game now so called, then the significance of the term is at once apparent. The first rule of the game is "be quiet." There are those, however, who insist that its name is not *whist*, but *whisk*, which tells quite a different story. It is only fair to say that the game was often called *whisk* in the seventeenth century.

There is good authority for asserting that *whist* is the proper name of the game, and that *whisk* is a name applied to the game by the illiterate, who misunderstood the nature of the word. Since the days of Dr. Johnson the game has been called *whist*, "from the silence to be observed in play," as one seventeenth century writer says.

L. H. B.

GOING UP—\$1.30 FOR FOUR.

A Rather Attractive Arrangement of Meals at Small Expense.

Steak for dinner, and a New England supper. The following menus, \$1.30 a day for four people, a trifle less than 11 cents a meal, make what might be called a well-balanced ration.

BREAKFAST	
One-half Orange	
Corn Cakes	Caramel Syrup
Dinner	
Steak	Baked Potatoes
Creamed Cauliflowers	
Lettuce Salad	Bread and Butter
Dried Apricot Shortcake	
Supper	
Baked Beans	
Tea	Boston Brown Bread
Baked Apples with Whipped Cream	

HAVE AN ASPARAGUS BED.

It Is Not Much Trouble to Grow this Desirable Vegetable.

You pay fifteen cents a bunch for asparagus during the season, and you say you never get enough. Perhaps you don't know that it is one of the easiest vegetables to care for, when once you have your own asparagus bed.

If you expect to start a bed this spring, now is the time to get your ground into shape. Almost any soil will do if it isn't too heavy. If it is rather heavy the addition of manure the year before would materially help the ground. It doesn't take a large bed to supply the ordinary family. Spade up the ground not more than a foot deep, and cover it with good, rich manure. This should be done about this time of the year—February. In April you should get the number of plants you desire to set out from some reliable greenhouse. Some say that plants a year old are best to set out, while others contend that a two-years' growth is best, before setting. In either case the plants should be strong and vigorous.

The sproutings should be set about six inches from the surface and the ground gradually filled in during the spring. If they are set in rows or trenches the plants should be about four feet apart and the trenches at least three feet apart. Asparagus planted in this way will be ready for use in two seasons. The first object in asparagus growing is clean culture. Although it is naturally a hardy plant it must have a certain amount of care as to watering, manuring, etc.

SILAGE FOR MILK COWS.

IT IS A FINE CHANGE IN RATION FOR DAIRY STOCK.

Corn Makes the Best Silage—To be Used After Milking to Avoid Chance of Disagreeable Flavor—Be Sure It's Unspoiled.

Make a change in the ration you have been feeding your dairy cows. Try silage; it keeps digestion perfect, gives an appetite, and increases the milk flow.

The nearest ideal food that can be obtained for a dairy cow is a good pasture, but in Kansas for more than six months out of the year green pasture is not available. The best substitute to use during this period is corn silage. In the fall, when cows are taken from the pasture and fed on a dry ration, the milk flow is reduced, but if silage can be added to the ration the change will have little effect on the cows. Every producing cow in the herd at the Kansas State Agricultural College receives some silage at every feeding time.

GOOD FOR DAIRY COWS.

The value of silage over dry feed is almost double. Its importance rests upon its succulence; like grass, a natural feed, it keeps the animal in a healthy condition, maintains the vigor of the cows while producing a large flow of milk. It should be given an important place in the ration of dairy cows, because their digestive organs are so formed that they require a juicy and bulky food.

Silage in itself is not a balanced ration, but it tends to increase milk production. Economical milk can be made by feeding corn silage and a legume hay without the use of much grain.

The best crop to raise for the silo is corn. No crop will furnish more feed to the acre. If silage is to keep well the leaves and heavier parts must be kept thoroughly mixed, evenly distributed in the silo, and well tramped next to the wall. After filling, the top six inches should be wet once, and the whole surface tramped every day for a week to obtain a thin, compact layer of well-rotted silage which will exclude air. The feeding value of corn silage can be increased by combining with it cow-peas or soy-beans.

The man that uses his corn crop for silage is economical, he has little waste in feeding, reduces harvesting expenses, and saves 40 per cent more of his crop.

AS TO THE FLAVOR.

Ever since silage has been fed to dairy cows there has been more or less controversy over its effect upon the flavor of the milk. In a series of experiments that have been conducted it was shown that silage has no effect on the flavor of the milk. In one experiment 372 persons tasted milk from cows that were fed silage one hour before milking and from cows fed at the time of milking. The summary of the results shows that 60 per cent preferred silage milk, 29 per cent preferred non-silage milk, and 11 per cent had no choice. This is strong evidence that if the silage is of good quality and used in reasonable amounts, in connection with other feeds, it is one of the best feeds obtainable for dairy cows when pasture is not available.

When silage imparts a bad or disagreeable flavor to the milk produced from it, almost invariably the cause is that the silage has not been fed properly, or that spoiled silage has been used. All feeds of this nature should be fed after milking and not before, to avoid the possibility of producing an unpleasant flavor in the milk.

A Campus Wireless.

The physics department is installing a wireless telegraphy outfit. Experiments will be carried on first with the wireless telegraph alone, but later the outfit will be converted into a combined wireless telegraphy and wireless telephony system. The aerial will be high enough to receive and send messages 1,200 miles. W. L. Heard and C. H. Carr, senior electrical engineers, are installing the system and performing the experiments as their thesis work.

KNOW WHAT HUMUS IS?

A DARK-BROWN MATERIAL FROM DECAYING VEGETATION.

If Your Soil Lacks in Fertility, Plow Under a Green Crop or Stable Manure and Watch for Next Year's Crop.

What has humus to do with soil fertility? Humus is the product that gives to soils their dark color. It is a black or brown material. When wet it is a gelatinous mass and very adhesive. Humus results from the natural decay of vegetation, and is usually rich in potash, soda, and phosphoric acid.

The functions of humus in the soil are numerous. Soils rich in humus are loose and mellow, easily tilled, and very productive. It assists in the disintegration of rock materials by the formation of certain soluble acids.

The average cultivated field contains about five per cent humus. In arid regions there is usually less than three per cent; sometimes as low as three-tenths per cent. The lack of humus can be observed by the gray tint of arid soils, also by their tilth or working quality.

Meadows and woodlands usually show the highest humus content, showing that cultivated soils gradually decrease in this material. This is caused by free aeration and consequently the burning out of humus.

Depleted soils must be built up if fertility is maintained. This is done by the application of stable manures or green manure. Stable manure is probably the best source. It can be applied to the soil in whatever amount is needed. In the humid climates it is not necessary to plow it in, as the rains entering the soil will wash in the plant-food. In the arid west the best results are obtained by plowing as soon after application as possible. A great amount of plant-food will be lost by the burning out process if left on the surface.

The plowing under of a rank growth of rye, in the spring, makes a fine substitute for manure. Rye will grow on nearly all kinds of soils, thus making this practicable. A rank growth of cane, plowed under when about two feet high, is good. If the farmer would plow his stubble-fields in the fall, instead of mowing off the weeds and leaving them to rot, he would find that he had enriched his soil for the next year's crop to a great extent, besides making it looser and easier to handle.

WHY NOT GROW BROOM-CORN?

Satisfactory Crops Are Sold for \$75 to \$100 a Ton.

Why is there not more broom-corn grown in Kansas? Good broom-corn is worth \$75 to \$100 a ton. An acre under good cultivation will produce one-half ton at a cost of \$15. This gives a net profit of \$22.50 an acre.

Farmers have formed the habit or custom of growing corn and wheat and wheat and corn, and do not wish to put a new crop into their rotation even if it does give large profits.

But why not get out of the old rut? At present broom-corn is very profitable and the indications are that it will continue so for several years at least.

In order that the brush may grade high and bring a good price it must be straight, uniform, fine, and without a center stem. Most of the seed available is so bad that it is impossible to get these results. The agronomy department of the Kansas State Agricultural College has been breeding pure seed for several years. This year it has about one hundred bushels of improved seed for sale. The Dwarf variety is best suited to Kansas conditions. This is especially true regarding the central and western parts of the state.

The acreage in broom-corn is annually increasing. There will be more planted this year than ever. Farmers are waking to the fact that it pays. And where they plant good seed, cultivate well, harvest at the right time, and cure the brush properly, it is one of the very best money crops Kansas has.

CORN ALONE WILL NOT DO.

Pigs Tire of it and Require Other More Palatable Food—Rations.

Feed a pig corn alone and it will make a stunted growth, become fat and chubby. After a while the corn will lose its palatability and the pig will not eat a sufficient amount to keep itself in good condition.

Pigs will eat when they are two or three weeks old, and they should be supplied food at that time. Give them a separate trough, fenced off to exclude the matured hogs, but allow the pigs access to the trough by passing under the lower boards.

An excellent ration for pigs at this age is sweet skim-milk mixed with wheat shorts to form a thin mash. Feed as much as they will clean up twice a day. After they have thrived on this ration for a week or two, add a little corn-meal to the mixture. Keep gradually increasing the amount of corn-meal until, at weaning time, the pigs are receiving equal parts of corn and shorts. Weaning time will range from the age of seven to twelve weeks, depending upon the capacity of the sow.

When pigs are first weaned they should be allowed to run on a pasture rich in protein, preferably, alfalfa, clover or rape. On either of these pastures the percentage of corn in the ration may be greater than on a pasture less rich in protein. However, pigs at this age are scarcely able to derive enough protein from a forage crop, making it necessary to give a supplement to corn.

A ration consisting of a mixture of corn-meal and skim-milk will give excellent results on pasture at this period. In the absence of skim-milk, a feed containing 60 per cent corn-meal, 38 per cent shorts, and 2 per cent tankage is quite economical. Or, ground oats, wheat, and barley, which can be grown on the farm, may be substituted for the shorts and tankage. Barley is fed to pigs in this manner at the Kansas State Agricultural College with excellent results.

After the pigs grow to be shoats, weighing 75 to 100 pounds, it is not necessary to feed anything except corn on a good clover, alfalfa or rape pasture. By this time the pigs are able to derive all the protein they need from the pasture, and it does not pay to feed a supplement unless corn is very high and the supplementary feeds very low in price.

Don't feed "slop." The fact that the Kansas State Agricultural College is never troubled with cholera or any other common disease is attributed partly to the fact that no slop is ever fed at the station.

WHY NOT HAVE WATER?

That is to Say, Why Not Pipe it into the House?

One of the causes of discontent on the farm is the lack of a water system. The hardworking housewife has to carry the water needed for cooking, washing and other household uses. Where water has to be carried the supply is likely to be meager, and this adds to the difficulties of housework. When the men folk come in from the field, tired and dirty, nothing would give more relief to aching muscles than a good bath. The luxury of a well-appointed bath-room for summer and winter needs no comment. Few country homes have such a convenience.

The kitchen stove or range should be equipped with a patent water back and a 40-gallon boiler. This would furnish hot water for kitchen, bath-room, and dairy. The system should be so arranged that the water can be cut off at the tank outside and all pipes drained through a faucet in the basement—that being the lowest point—thus preventing the bursting of pipes in cold weather.

As to the value, as a time saver a system that will furnish hot and cold water in the kitchen, bath-room, and dairy is indispensable. The work in kitchen and dairy could be done in less than half the time than when the water must be carried. The added comfort and convenience would go far toward paying the bill.

GROW YOUR OWN SPUDS.

SELECT A RICH SANDY LOAM SOIL AND GET BUSY.

Plow the Ground in the Fall—Disc and Plant Early in the Spring—Use Large and Healthy Potatoes for Seed.

Right planting will not insure a crop of potatoes, but it will more than double the chance. The methods here given are the result of a series of tests at the Kansas Experiment Station, supplemented by the experience of several successful potato growers. While methods must, sometimes, be modified to suit soil conditions, the following are the important steps upon which successful potato culture depends:

1. Selection of field.
2. Preparation of soil.
3. Planting of seed.

It has been proved that the best soil for potatoes is a rich, porous, sandy loam.

By a rich soil is meant a soil containing an abundance of available plant-food. This can be determined, in most cases, by the appearance of the soil and a knowledge of the crops it has recently grown. If, by its dark color, it appears to be rich in humus; if it has grown alfalfa two or three years or had some leguminous crop plowed under as green manure, it is good soil for potatoes. The field must also be well drained.

PREPARATION OF SOIL.

Plow the ground seven or eight inches deep in the fall, when it is moist enough to be mellow, and leave it rough to catch the snow and expose to freezing the eggs of insects.

Disc in the spring after the weed roots are well started, and harrow well. If a potato planter is to be used the seed-bed is ready. If the planting is to be done by hand, furrow the rows three feet apart, with a plow or lister, and deep enough that the bottom of the furrow will be three and a half or four inches below the surface when leveled.

Drop uniformly, about fifteen inches apart, clean, healthy seed, cut in pieces containing one good eye, and cover with a cultivator or any implement which will cover uniformly.

If you and nature unite in making conditions favorable for the growing crop, you will have a potato patch that will be your pride and the envy of your less careful neighbor.

PLANT YOUR GARDEN RIGHT.

Select a Good Sight and Sow Pure Seed About April 1.

Along about the first of March you will come home some evening and find your wife on the back step studying a seed catalogue. As you will need a spring garden you might as well go about planting it in an intelligent fashion.

The first thing that concerns one is the location and the soil. If a farsighted individual, who always thinks of everything, the ground was plowed last fall and deeply bedded in manure. If possible, select land with a southern slope, or, better still, protected on the north by a building or hedge. If there is a choice of several soils, use that with the greatest amount of sand and black loam and the smallest percentage of clay. Now, plow deeply and harrow well and the first work will be done. Unless using a hotbed, March is a little too early to plant the seeds. A hotbed gives the vegetables an excellent start, and the first of March will be a good time in which to plant the seeds of beets, cabbage, cauliflower, celery, eggplant, lettuce, radish, and tomato. It is well, even when using a hotbed, to wait until March 15 before planting bush lima beans, Brussels sprouts, cucumber, and squash.

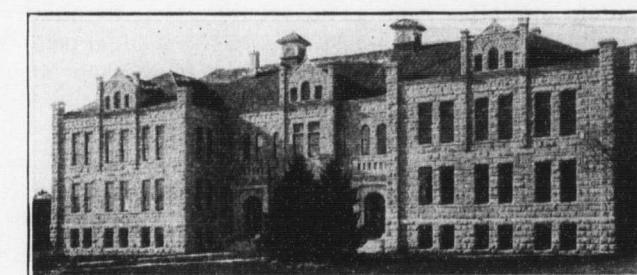
No vegetables should be planted in the open before April 1, and then it is safe to plant only carrot, onion, peas, potato, and spinach. The directions for planting seeds are given on the package. Don't be induced to buy a certain variety because of the gorgeous lithograph of the full-grown vegetable displayed upon the package. Buy seeds from a reputable seed dealer.

INDUSTRIAL CLASSES

For Teachers

AT THE

Kansas State Agricultural College



Domestic Science and Art Hall
One of a group of sixteen college buildings devoted to industrial education

Spring Term, March 28

Summer Session, Six Weeks, June 15

Four thousand rural schools will close by March 28. The Kansas Agricultural College, to meet the great demand for sound instruction in Agriculture and Home Economics will offer classes in its Spring Term in the following subjects:

Elementary Agriculture, Soils, Farm Crops, Live Stock, Poultry, Small Fruits, Market Gardening, Landscape Gardening, Plant Propagation, Cooking, Sewing, Dressmaking, Home Decoration, Wood-Work, Iron-Work, Mechanical Drawing, Object Drawing, Methods of Study, Methods of Teaching, Industrial Education.

In the regular schedule for the Spring Term will be found elementary and advanced classes in Botany, Physics, Chemistry, Entomology, etc., all taught with an economic application.

For further information address

H. J. Waters, President,

Manhattan, Kansas

TEACHING HOW TO EAT.

AGRICULTURAL COLLEGE STUDENTS WILL LEARN ETIQUETTE.

One Hundred Senior Men Will Be Served Noon Meals by the Domestic Science Department, Beginning With the Spring Term of School.

One hundred young men, seniors in the Kansas State Agricultural College, signed their names Tuesday morning to an agreement to take a course in table manners. The chief purpose of this course is to encourage the proper use of fork and spoon, or spoons, and the discarding of the saucer as a drinking vessel.

Mrs. Mary Pierce Van Zile will "entertain" the senior men for five noon meals every week of the spring term in the domestic science dining-room—meals twenty-five cents each, or \$1.25 a week.

The course is not compulsory. The senior men thought they needed it and asked for the course, and Mrs. Van Zile has agreed to grant their request. In order to give this course, the serving of meals to the faculty will be discontinued for the spring term, as Mrs. Van Zile contends that the duty of the domestic science department is primarily for the instruction of students.

For this reason, in place of serving the faculty next term the department will serve its formal and informal luncheons and dinners to senior men. Naturally, the senior men are not a little pleased and "stuck up" about it.

Just how to eat properly a properly served meal is a little art, and one in which many young men are not apt to be expert or even passingly graceful. How many young men can sit down to a daintily served dinner or luncheon and go through all the courses and not make an error with all the silverware at the side of their plates?

When to use the oyster fork and not the fruit fork, how to save the after-dinner coffee spoon until its right time, and the other niceties of silver service manipulation; how to carve and serve

an informal dinner—these, and more, are what the seniors will learn next term.

The dining-room at the domestic science building will hold forty-four persons. Three students and one domestic science instructor will sit at every table. The seniors will be served in classes of thirty-three and in shifts of two or three weeks.

The course might be called "Silent Instruction in Table Etiquette," for there will be no verbal instructions or criticisms.

There will be noon meals served every week on Tuesdays, Wednesdays, Thursdays, Fridays, and Saturdays; two informal luncheons, one informal dinner, one formal luncheon, and one formal dinner. The junior girls will do the cooking and serving, as has been the custom during the winter and spring terms of each year, and the menus at every table will be different. Thus it will be that at the same time the girls are getting their instruction in preparing and serving meals the boys are being prepared for their positions in life as well, and, incidentally, getting a good meal.

DOG CREEK SOCIETY.

Reporter Goodwin Tells an Eager World of the Week's Doings.

Ghosts are numerous on Dog Creek. Glen Goodwin stayed all night Monday with Clarence Clark before the family left.

Grant Goodwin, L. C. Clark and Ross Clark spent Monday evening at Charley Clark's.

Grant Goodwin and family left Tuesday for their new home in Michigan. They will be missed from the creek, but all wish them success.—Ex.

An Alumnus Doing Good Work.

Isaac Jones, '94, is now at Etiwanda, California. Mr. Jones is working out several tests in orchard fertilizers which he hopes to make profitable. He reports that the orchard crop, though light, was of fine quality. The Kansas State Agricultural College colony is doing well.

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Number 21

HOW A BUDGET IS MADE

A PROCESS TAKING WEEKS OF CAREFUL FIGURING AND PLANNING.

It Began Last Fall in the President's Letter to Department Heads and it Will End Soon in the Legislature.

What is this thing called a budget? How is it made and who makes it? Less is known, probably, about this "budget" than about any other subject that is of prime importance to every one in the state.

The budget is made in this way, using the Kansas State Agricultural College system as the model: When Henry J. Waters, the president, remembered that the legislature was to meet in January, he sent to the head of every department in the college a letter asking that head to describe the needs of his department for the next two years; to set forth the necessity for any increase needed; and to remember, in making this estimate, that he must consider that the present was no time for large expansion, but that it was, on the contrary, the time for retrenchment and economy. When the replies to these letters came, President Waters called in every man and went over with him the items in his budget, trimmed and shaded them and cut them down as far as the head of the department believed possible. Then the president called in the deans of the several groups, such as the dean of science, of mechanic arts, of agriculture. The deans were consulted one at a time. President Waters took up with them the requests of their respective groups, and once more cut down the estimates, eliminating many demands.

THEN THE BOARD.

The next step was to take the estimates of the departments to the board of regents. When the board met, every member had an exhibit showing summaries of the requests of the departments, in what respects they were increased over two years ago, and how much the board had allowed them from the appropriation of two years previously; the income from sales and what was done with such income. There was, also, the summary of all the departments. When the figures were added, the board faced an estimate, after whittling, shading and eliminating, of about one and three-quarter million dollars. Every department was eager to improve its work, every head was eager to do better than he had done. The fact that more room and more facilities were needed was the best possible proof of the school's growth and the teachers' recognition of the fact that it had a great future in view. The problem for the board to solve was: How to trim this one and three-quarter million dollars to one million and yet not injure the efficiency of the college any more than was absolutely necessary. And earnestly these regents labored hour after hour as a group of business men managing their own affairs, and reduced the estimate to \$550,000 a year.

AND THE TROUBLE CAME.

This was where the trouble began. As soon as this was published came disappointment in the college and over the state. The State Dairy Association called a meeting and adopted resolutions censuring the board for cutting the estimate of the dairy commissioner from \$20,000 a year to \$7,500 a year. The association appointed a committee to wait on the board and insist upon the original demand. But when the members of this committee came to Manhattan and saw how the budget was made, this budget of which the papers and the people talked so much, and that their increase, small as it was, was proportionate to others, they went away satisfied that the board was doing the best that it

could. The citizens of Hays and Ellis counties held mass meetings protesting against the action of the board in reducing the estimate for the Fort Hays Branch Experiment Station from \$70,000 to \$30,000 a year.

Although the board met to consider these protests, and they were numerous everywhere, the members decided, in justice to other interests and other institutions, and in consideration of the general feeling of economy, not to increase its budget one cent.

At this point the budget left the college and was taken to Topeka. The legislature was in session, and there the joint ways and means committee of the House and Senate received it. A majority of the members of both Houses and the ways and means committees of both Houses visited the agricultural college to see for themselves the departments mentioned in the budget and to judge for themselves the justice of the demands. Every visiting member examined some special subject or phase of the college work upon which he was particularly competent to pass. One came to estimate the need of repairs; another as to the necessity of buildings, etc. Finally, after long labor of the most earnest and painstaking kind, not exceeded by the labor of a board of directors in a private business, the budget of the college was, by the ways and means committee, reduced \$203,400.

At this point the governor appears in the budget. It is the third act. Anxious to see every appropriation kept to the lowest possible point without injuring the efficiency of the institutions, the chief executive called in the heads of the state educational institutions and the chairmen of the ways and means committees, and with them went into a conference in which every item in the several budgets was taken up and considered carefully, one at a time. The furnishings of a house could not have been inspected more minutely. Here was a group of men representing both political parties—men who represented for a time no political party—and all without any feeling of partisanship, figuring as best they could to save the people's money paid in taxes, and still to maintain and equip and operate properly the big institutions the people have built. The result of all this work will be shown soon, probably this week, in the vote of the House and the Senate on appropriations.

TREES ALONG THE ROAD.

On a Farm, Also, They Increase the Land's Value Quickly.

Tree planting will improve the farm or the roadway wonderfully. Many farmers have all their available money invested in land, and they borrow more to keep up running expenses or to increase their holdings. Suppose a man goes out to look at a piece of land to see if he desires to lend money on it. If the land shows carelessness—if the machinery is standing neglected in the fields, if there are no trees to give the yard a cheerful appearance—the chances are that the man will drive on, or if he does stop, it will not be for long.

Charles A. Scott, state forester at the Kansas State Agricultural College, will be glad to advise anyone as to the trees that should be set out in the different parts of the state.

In the southeast part of Kansas the tulip, wild black cherry, and elm can be grown successfully. In the northeast the red oak and the hard maple will do well. The white elm is one of the best trees that can be set out. The soft maple is not a good tree, because it is short lived and is subject to injury by wind and fungus diseases. The cottonwood is a back number, too. The walnut tree, the red oak and the elm are all good trees for the roadway.

DRESS FOR \$75 A YEAR.

COLLEGE GIRLS MAY PROCURE CLOTHING FOR A MODERATE SUM.

How One Girl at the Kansas State Agricultural College Has Settled the Dress Problem in a Very Satisfactory Manner.

A college girl can dress on \$75 a year, and dress well. A rumor has been circulated over the United States, especially in the eastern part, that it is impossible to dress on such a small amount and yet be respected.

Here is a list of articles necessary for a college girl for one year:

3 linen shirtwaists.....	3 00
2 school waists.....	1 00
1 tailored suit.....	20 00
1 skirt.....	7 00
1 evening dress.....	5 00
2 wash dresses.....	2 00
1 woolen shirtwaist suit.....	5 00
pair of shoes.....	3 50
1 pair of low shoes.....	5 00
Handkerchiefs.....	.75
Undergarments.....	8 00
2 hats.....	7 00
1 pair of gloves.....	1 50
Incidentals.....	6 25
Total.....	75 00

To live comfortably on this amount means strictest economy in the purchasing and making of clothes. A girl will have to do her own sewing and laundry, practice neatness, and strive in every way to make her clothes look pleasing.

She cannot afford to buy a suit and coat the same year, for most persons in ordinary circumstances buy a coat one year and a suit the next year.

The next consideration is whether she will have the time to do her college work properly, and also do her own sewing and laundry. It is usually the busy student who has to do her own home work.

A course in the domestic art work as taught in the Kansas State Agricultural College is very helpful to the girl who wishes to economize on the dress problem. Here she learns to draft patterns, and cut and make her clothes. The recent course in millinery will help her to cut her hat expense about one-half.

DON'T GO BACKWARD.

Kansas, Says the Garnett Review, Should Keep in the Front Rank.

The Garnett Evening Review.—We notice a tendency on the part of the Kansas legislature to be niggardly with the educational institutions of the state—to cut down the appropriations for the upbuilding and maintenance of our State University, our Agricultural College and other institutions of learning.

This streak of "economy" is something we do not understand. Every member of the legislature should be interested in the welfare of the young men and women of the state. Every member should take pride in the institutions of the state, and especially the educational institutions, and should lay no stone in the way of their advancement. . . .

It is the young men and women of the state who will suffer.

Every member of the legislature should take pride in our institutions of learning, and, instead of trying to cripple them, should build them up.

Minnesota, with a population only 385,000 greater than ours; with a property valuation only twenty per cent greater than ours; with a bonded debt four times greater than ours, is asking its legislature to appropriate five and a half million dollars for her state university alone. This is more than four million dollars more than Kansas' State University is asking for, and it is over three million dollars more than our State University and Agricultural College are asking for.

The University of Illinois expects to receive from the legislature of that state \$2,332,084 more than the University of Kansas is asking for, and \$1,232,284 more than the combined bud-

gets of our State University and Agricultural College.

Kansas' Agricultural College is the greatest institution of its kind in the world, and our State University ranks among the first in this country. Every true Kansan wants to keep these places among the leading educational institutions, but this cannot be done by being niggardly.

AS TO "NOISELESS EATING."

Many Ask Dean Van Zile About the Course in Table Manners.

The recent announcement that the Kansas State Agricultural College would establish a course in table etiquette has attracted wide-spread attention. Mrs. Mary P. Van Zile, dean of women, has been receiving from one to five letters daily for the last week. One enterprising manufacturer in Cleveland writes that his attention had been called to an article that Mrs. Van Zile was to teach one hundred young Kansans the art of "noiseless eating." He is making a special kind of circular noodle that he believes to be the nearest inaudible and noiseless soup-noodle ever produced. He sent some samples to be tried.

Several letters were really appreciative and voiced the thought of many persons who had read of the innovation. A Chicago man wrote for a copy of any literature that the department might have on the subject. A woman in Topeka who had had the pleasure of being a guest of the domestic science department two years ago, asked for information, as did a number of other persons.

SELECT YOUR POTATOES.

You Can Increase the Yield by the Use of Good Seed.

The variety of potatoes to plant depends upon the kind of soil in which they are to be planted. The best way to learn which variety is best adapted to your conditions is to experiment. Plant a number of rows of each variety side by side and see which yields the best. Repeat the experiment a second year, using the three or four varieties that gave the best yields, and choose the variety which gave the largest yield.

The seed must be carefully selected or the standard of the variety will deteriorate. One potato grower selects his seed potatoes from hills containing six or more potatoes of marketable size and no culls. The first year only 16 per cent of the hills filled this requirement. The fifth year 70 per cent of the hills might be used for seed. It is not necessary that the farmer select his own seed. Good Northern grown seed is just as desirable.

With the best of seed it is impossible to grow a good crop of potatoes on poorly drained soil. The soil should be loose, cool, moist, and well drained. Deep plowing makes a better seed-bed than shallow plowing.

PRESIDENT WATERS TO TALK.

An Address to the Teachers' Association Next Month, in Chanute.

President Waters will give an address in the meeting of the Southeastern Kansas Teachers' Association, which will meet at Chanute March 2, 3, and 4. His subject will be: "The responsibility of the Rural School."

They Like the K. S. A. C. Girls.

Miss Bertha M. Schwab, a senior student, left college at the end of the fall term and went to Oakland, California, to take charge of the lunch room of the Y. W. C. A. Several requests have been sent in to Mrs. Mary Van Zile, dean of women, by the California Y. W. C. A. committee for more girls from the home economics course.

REAR HOOTHOUSE LAMBS.

FARMERS GET FORTY CENTS A POUND FOR THE MEAT.

This Luxury is a Fall Product "Crowded for an Early Market," and is Turned Off Fat From January 1 to March 1.

The farmer who is selling hothouse lambs is getting 40 cents a pound for his meat. A hothouse lamb is a fall lamb "crowded for an early market," and may be turned off fat any time from January 1 to March 1. Hothouse lambs retail as high as 40 cents a pound, which means from \$7 to \$10 for a lamb two months old. The demand for these lambs becomes strong and steady after Christmas and continues until warm weather. Under the best conditions, sixty days should be sufficient to produce a 45-pound lamb.

The hothouse lamb is sent on the market in the condition that the farmer calls "hog dressed," and in the killing it is important that it be well bled. The lamb must be in prime condition; that is, fat, and the carcass attractive, if you wish to get the top price.

The lamb born in October is too early and the January lamb too late for the highest price. During the early season, 25 pounds dressed weight or 45 pounds live weight is large enough, but later a heavier lamb will sell as quickly. It is not weight so much as fat that counts.

John Peele, who grows hothouse lambs extensively, prefers the grade Dorset, as it will lamb more readily in the fall than any other breed. The Dorsets are also the best milkers of any breed of sheep. There is nothing so good as milk for the baby lamb.

Any information desired upon this subject can be obtained by writing to the animal husbandry department of the Kansas State Agricultural College.

WILL GIVE TWO CONCERTS HERE.

The Minneapolis Symphony Orchestra Has 55 Players and Seven Soloists.

The Minneapolis Symphony Orchestra will give an afternoon and an evening concert in Manhattan, April 10. The orchestra is brought here by some of the music lovers of the town and not for the purpose of making money. Several town business men and college professors are behind the proposition. The contract was signed recently by R. H. Brown, assistant professor of music, and L. H. Beall, assistant professor of English.

The orchestra numbers fifty-five, with seven soloists. These are: Madame Tewksbury, soprano; Miss Genevieve Wheat, contralto; Charles Hargreaves, tenor; Marcus Kellerman, basso; Carl Fischer, cellist; Czerwonky, concert-meister and violin soloist.

The Minneapolis Symphony Orchestra ranks with the four best musical organizations in the country, such as the Boston Symphony Orchestra, the Cincinnati Symphony Orchestra, and Thomas' Orchestra. This is the highest priced musical organization ever brought to Manhattan, and a good attendance is necessary if the enterprise is to succeed. A combination ticket will be arranged so that all may attend both concerts for a moderate admission fee. The hall for the concerts has not been definitely chosen.

AT LONE HILL.

The Daily Doings of a Dreary District Delightfully Described.

"Lone Hill Lonesomes," in the Beloit Daily Call: Fred Ahlvers and the boys were busy greasing harness this Tuesday forenoon.—W. C. Rector butchers a calf this Wednesday and will have some nice meat.—Forrest Fowler has been laid up of late with his arms swelling.

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PRES. H. J. WATERS Editor-in-chief
PROF. C. J. DILLON Managing Editor
DR. J. D. WALTERS Local Editor

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THE NEW DEMOCRACY.

One of the popular students of the Kansas State Agricultural College, a fraternity man, first class in his studies, a singer worth hearing, a leader among his comrades, sells coffee and tea part of the time and does housework while he's resting, to pay his way through college. There isn't a boy or a girl or a man or a woman in any department—or a member of the faculty either—who isn't glad to meet this student. He stepped from a train one day, a few years ago, with hardly enough money to pay the little fee the state exacts for tuition, declared he was alone in the world, his parents dead, and that he had come to town for an education. In the summer, for several years, when the college is closed, he has worked for the Harvey Eating House Company in Colorado or California or some other state. Every year he has a better job—not a position—with better pay. He is learning important things, seeing the country, saving his money and paying his bills promptly.

Fine, isn't it? But not at all an exceptional case. Others are out early to classes, sometimes cooking their own meals and making their own beds, studying in the library, and then hastening into the residence districts to clean some one's house with a vacuum machine; selling specialties, waiting on table, washing dishes, doing janitor work; getting in an hour's wrestling or boxing or running in the Y. M. C. A. gymnasium—paying their way for an education. No social distinctions, no laying down of dead-lines, no "codfish aristocracy," can operate to the detriment of that kind of young men. Overalls at 5 o'clock and an oratorical contest at 8. Making a casting in the foundry at one hour and writing a column for the college paper the next. Setting up an engine or a cultivator or a seeder at 11 o'clock and going with a committee at noon to see the president—busy, busy, busy from morning until night.

"In the peaceful struggle for existence," said David Starr Jordan, in "The Blood of the Nation," published in 1906, "there is a premium on such virtues. The virile and the brave survive. The idle, weak and dissipated go to the wall." Were the "embattled farmers," who fired "the shot heard round the world," at Lexington, any braver or more worthy of acclaim than these boys of Kansas, "the best ye breed," as Kipling put it, who are building up the finest democracy of the nation? Is not the state's future as a great agricultural commonwealth safe in their hands? Why need theorists and sociologists and long-haired scientists worry about rural yearnings? Why should men haggle and scheme and work themselves into a frenzy about appropriations when the results are so mighty? And what a pity it is that so few men can see over the fence that bounds their own little acre—what a pity so many are deaf.

NO MONEY—NO EDUCATION.

During the last few years agricultural colleges and other institutions which teach agriculture have not made as much progress as was expected of them, says the *Orange Judd Farmer*. A careful inquiry leads to the conclusion that with some few ex-

ceptions the large increase in the number of students has really handicapped instructors. The institutions have not been able to secure sufficient funds to keep pace with the increase in attendance. Class rooms are overcrowded; insufficient apparatus; impossible to secure enough teachers. Some courses have been dropped because of this lack of facilities in face of the demand for more, rather than fewer, lines of study.

This state of affairs is indeed too bad. The outsider, knowing that the attendance has largely increased, felt that the college was prosperous and did not need added facilities. With most of the agricultural colleges the tuition is either free, or so small that more students are a burden rather than a help, so far as the financial end is concerned. Middle western colleges and state universities are asking for large sums of money to take care of this larger number in attendance. No one deeply interested in the future of education will object to granting these requests. Money for agricultural education in particular cannot be expended to better advantage, and it is to be hoped that all these state legislatures will be exceedingly liberal in making appropriations for their agricultural colleges.

THE OBSERVING OBSERVER.

"Mrs. A. J. C. Lowe," exclaims the *The Pleasanton Observer*, in its issue of February 15, "sold \$205 worth of eggs and chickens, last year, from 130 hens." This interesting information is stretched across the top of the front page—above the title—where every reader would be certain to see it. The story was told in detail in another place, and a mighty interesting story it was.

But that was not all that attracted attention, last week, in the *Observer*. In another column was a well-written account of a farmer's experiences keeping books, how he had learned for the first time just how much he had earned in a year, and how this was a profit and that a loss. Also, there was a story about an experiment in cultivating corn, and several other exceedingly good items of extraordinary interest to farmers.

Now the *Observer*, in common with other newspapers, is entered in the post-office as second-class matter. In giving close attention to the needs of its readers, in presenting agricultural news in an agricultural community and presenting it attractively, Mr. J. Frank Smith, the editor, has broken all records. His paper is first-class matter.

A FINE PAPER, BUT—

Why do so many persons find their only pleasure in telling you of your mistakes? You may hammer and strive and struggle and not get a rise out of some quarters. But one day you do something that isn't exactly in line with their restricted vision, and whoop! They all spring to the front, clap their hands, and smile the broadest of smiles as they tell the world what a poor, ignorant yap you are—in their opinion.

These are the men who never by any stretch of the imagination can see good in anything not of their own production; who delight to write you of the errors you made in the last issue and how you have proved yourself a fit candidate for the state's hospital. Usually these communications come from persons you don't know and don't desire to know, and who wouldn't add one ray of intellectuality to your life if you did know them.

The sincere friend, whose counsel is valuable, is he who writes or advises you of your shortcomings while patting you on the back for the good you do. The Uriah Heep kind of counselor is the man that writes: "You are getting out a fine paper and I find much comfort in it, BUT—" The eternal BUT that sends a chill down the ambitious man's spine and makes him resign himself to read one more wearisome kick.

IS SPELLING A LOST ART?

Where are the "good old days" when the study of the "speller" ranked in importance with that of the three R's, and when not to know how to spell was considered a disgrace? Once a

A Golden Text.

Behold the days come, saith the Lord, that the plowman shall overtake the reaper, and the treader of grapes him that soweth seed; and the mountains shall drop sweet wine, and all the hills shall melt.—Amos 9:13.

month, or perhaps oftener, the neighborhood "lyceum" met. There were three or four recitations, a debate, and a good, old-fashioned "spellin' bee," when everybody stood in the long line that reached at first entirely around the room, and spelled and syllabized as his turn came—and sat down covered with confusion if he missed.

Those olden days were golden days as far as spelling was concerned. We are a race of degenerates as far as spelling is concerned. Not one in ten of our college graduates of the present day could stand up for a minute with the rude, untutored country spellers of a generation or two ago. They knew little of literature, less of botany, and nothing at all of psychology, but they knew the spelling book; not merely the short, easy words, but the long, difficult "jaw-breakers" the mention of which would now create a laugh. L. H. B.

MUCH MONEY FROM HOGS.

The Necessary Thing is to Have Well-Bred Stock from the Start.

More money is made from hogs than from any other domestic animal in this state. When starting in the business, well-bred stock should be selected, headed by a thoroughbred registered boar.

The sows should farrow in March. They should receive special care at this period, every sow having its own pen. After the pigs are two or three weeks old the sows may be turned together. The little pigs should have access to a trough of milk and shorts, so they will learn to eat as soon as possible. The sows should be fed a ration of shorts and corn. They should be allowed a liberal amount of corn, so they can be sold before the hot weather begins.

The pigs should be weaned when six to eight weeks old. At this time the pigs must be fed a rich ration to induce growth. A pig once stunted will never make good gains. Several feeds can be used. The pigs should be allowed the free range of an alfalfa field and fed milk and shorts and a little corn, oats, and barley, or a mixture of the three. As they grow older, more corn may be fed. Corn should be fed during the summer. In the fall, when the alfalfa is withered, they should be put in a smaller pen.

The brood sows for the next year should be selected when the herd is taken from the alfalfa pasture. They should not be fattened, but should be kept growing. The best gilts in the herd should be kept for brood sows. In this way the herd can be improved every year.

THIS PRINTING WELL DONE.

The Live Stock Registry Report a Credit to Superintendent Rickman's Plant.

The first report of the Kansas State Live Stock Registry Board, a volume containing 328 pages exclusive of the fly leaves, has just been issued from the department of printing. The book is excellently done and reflects much credit not only upon J. D. Rickman, the superintendent, but upon E. N. Rodell, his assistant, and Miss Amy Allen, the proof-reader.

It was a job that settled, once for all, the printing department's fitness to do the college printing and binding and do it promptly.

A Kansas City firm bid \$2,210 for the registry board's report. It probably cost Superintendent Rickman \$2,000. The book was, by far, the biggest order ever handled in the college plant. It required 209 reams of machine finished book paper; thirteen reams of eighty-pound Snowflake; six reams of seventy-pound Snowflake; five reams of cover paper, and about \$20 worth of ink. The paper cost about \$700. Sixteen persons were employed on the job for more than a month,

nine of them journeymen printers from Topeka and Kansas City. Compositors and proof-readers will find interest in the fact that the report contained only fifty-five pages of straight reading matter. There were thirty-two pages of half-tones. The remainder of the book was made up of tables which printers call "double price stuff." The completed job is worthy in every way, and especially commendable in view of the fact that Superintendent Rickman has no adequate facilities for binding.

KEEP BETTER COWS.

You Can Feed Them Just as Cheaply as the Poor Ones.

Kansas is almost an ideal dairy state. The conditions required are present, but it lacks in the most important factor. There are three requisites for carrying on dairying: market, feed, and cows. There are good markets; prices are just as high for the dairy products as in the eastern markets. There is plenty of feed.

The most expensive feed for the dairy farmer is feed which contains protein, and Kansas is well supplied with alfalfa, which is a protein feed. This is where the Western farmer has an advantage over the Eastern farmer, who must pay from \$16 to \$24 a ton for alfalfa shipped from the West. The Western farmers get it for \$8 to \$10 a ton.

The reason that Kansas is not ranked with the best dairy states is because the cows are lacking. Farmers carry on dairying as a side line. They do not care whether the cow is making them a profit or not, if it produces enough milk for home use and is making the grocery bills a little "lighter." It does not cost any more to keep a good cow than it costs to keep a poor one.

There are two methods for getting good cows: by buying them, or by buying good sires and building up the grade herd. The first method would give quicker results but would cost more than the second, which seems more practicable.

Dairying is one of the profitable lines in which a farmer can engage. Kansas farmers have discovered this and there is a steady increase in the dairy industry.

BE KIND TO THE COW.

Provide Clean Stalls and Feed and Warm the Cold Water.

Is your family cow your friend? If so, she receives right treatment. Does she get a kind word and a gentle touch of a hand when you come near her? If she doesn't, she is not advancing pay in the form of milk for favors she does not receive.

The dairy cow has a highly tempered nervous system which responds to either care or negligence. If your cow is a type that should give a large amount of milk, and is not doing so, try this method of caring for her: Provide a clean and comfortable stall well lighted and feed her as follows:

Mix five pounds of wheat bran, six pounds of corn chop, and one pound of oil meal, and feed one-half of the mixture morning and evening. Then for roughage feed her about twelve pounds each of alfalfa and prairie hay every day.

This ration is for a cow weighing about one thousand pounds and producing four gallons of milk. If the cow is larger or smaller, or is producing more or less than this amount of milk, the amount of feed can be regulated accordingly.

Don't forget to give the cow all the fresh water she will drink, and in cold weather warm it enough to remove the chill. Cold water will restrict the action of the lacteal glands, and the result will be a lessening of the milk flow.

The family cow must have her whims satisfied as much as the small boy. Don't fear to bestow too much kindness on her; care for her regularly and she will show appreciation in an increased flow of milk.

In order to be a somebody you must be willing to be a nobody.—*Fra Elber-*

The Mystery.

"Taint me," says the farmer.
"Who's gettin' th' stuff."
"Taint me," says the packer;
"I get just enough."
To pay a small profit.
As fair as can be."
And all of them chorus
Together, "Taint me."

"Taint me," says the canner;
"My margin's the same."
"Taint me," says the huckster,
"Who's bracin' the game."
"Taint me," says the gardener;
"Tim poor all th' time."
"Taint me," says the grocer,
"I ain't seen a dime."

It's surely a puzzle
To know where it goes;
No maker or seller
Or any of those
Partake of high prices;
So they all agree;
And I'm a consumer,
I'm certain "taint me."

J. W. FOLEY.

SUNFLOWERS.

Bargain in a Manhattan store, advertised February 15: All valentines 25 per cent off.

Silver Cliff item in the Washington *Republican-Register*: "Mr. Beiter sawed wood Monday."

The student who tries to do two terms' work in one isn't right with himself or the work.

"We already have popular election of vice-presidents," says the *Ohio State Journal*, sadly, "and look at what we get!"

The Boston *Daily Globe* gravely announces that So-and-So sang the Holy City. And yet some persons poke fun at the country press!

"I wish to see the eagle soar," sang a lovesick student one night this week. The question is: why should anyone care to see an eagle soar?

Mr. Carnegie says a woman should not refuse a man because he is a millionaire. Don't you worry, Andrew, it'll never happen. Hoot, Mon!

"Speaking of Horace Greeley," says the Louisville *Courier-Journal*, "the only printer who could read his copy still works in offices throughout the country."

If the city dailies didn't keep up their everlasting campaigns and movements and steps, the country paragraphers wouldn't have a thing to write about.

Now a lot of scientists in Berlin are teaching a dog to talk. The one thing that endears dogs to many persons is the inability to do just what this dog is said to be learning to do.

The Boston *Globe* runs a column headed "Gems of Wit, Wisdom and Eloquence," and then, just to help the reader, it adds: (Humorous). Mrs. Partington being the writer, the precaution is well taken.

Factories employ thousands of men to make knives—jack-knives, pen-knives and other kinds. But did you ever borrow one for a moment and not be told "you'd better use the little blade. I never can keep a good knife?"

A member of the faculty passed six groups of college girls one afternoon last week. These are the "tag ends" of the conversation he heard: "and I told him—;" "he said that—;" "ever since I met the man—;" "and of all the stuck-up men I ever met—;" "he told me—." Mrs. C. F. Wilder's address, last Sunday afternoon, was about "The Man of To-morrow."

"Who pays the taxes?" inquires Wallace's *Farmer*, opposing liberal appropriations. You do, Henry; but only a very small part. And so do the officers in the institutions you are annoying, Henry, with your persiflage. There is a time in the lives of most men when they are "agin" everything, and that's what's the matter with Henry.

Dear, dear, how the world do move! What would readers think, only a few years ago, had they seen this notice in their paper, as it now is to be seen, daily, in the New York *Herald*? "The *Herald* maintains a wireless telegraph station in its ship news office in the municipal ferry building at the Battery. This station is open day and night. Masters of vessels equipped with wireless are requested to communicate marine news direct to this station. The CALL is O. H. X., registered, and the wave length 945 metres."

LOCAL NOTES.

A. E. White, assistant in mathematics, was a judge in a debate at the Junction City High School Thursday night.

J. W. Searson, associate professor of English, spoke before the Wabaunsee County Teachers' Association at Alma last night.

Miss Gertrude Barnes, librarian, has consented to the debaters using the periodical room to collect their debating material.

E. L. Holton, professor of rural education, spoke before the Dickinson County Teachers' Association at Abilene last Saturday.

Mrs. Henrietta DeMoss and J. C. Johnston, who have been visiting E. P. Johnston, instructor in public speaking, left last Monday for Ohio.

E. B. McCormick, A. A. Potter, W. W. Carlson, B. S. Orr, and Floyd Wilson, of the mechanical engineering department, are in Marion making a test of the city heat and power plant.

A. G. Pearson, secretary of the Kansas City, Kansas, Y. M. C. A., spoke in student assembly Tuesday. Mr. Pearson told of the good that the Y. M. C. A. has done everywhere and made an appeal for funds to pay the debt on the Y. M. C. A. in Manhattan.

Mrs. E. L. Knostman will lead the Y. W. C. A. services at the United Presbyterian church next Thursday evening at 6:45. Mrs. Knostman has just returned from a trip through the South. She will tell of her experiences along missionary lines among the southern negroes.

C. V. Holsinger, lecturer on horticulture of the extension department, has returned from the last regular institute work that he will do this winter. Next week he will begin his spring trips over the state inspecting orchards. There will be some special orcharding institutes later in the spring.

ALUMNI NOTES.

Miss Irene Taylor, '08, and Miss Edna Converse visited college friends last week.

Samuel S. Gross, '10, is now living at Los Angeles, California. Mr. Gross is a draughtsman.

A. H. Leidigh, '02, has been on institute work for the college recently. He has been attending institutes in Ford county and the adjoining counties.

J. G. Haney, '99, who has been manager of the Deming ranch at Oswego, Kansas, has gone to Boone, Colorado, where he will engage in farming for himself.

E. D. Richardson, '06, of Cawker City, stopped in Manhattan Sunday enroute to Kansas City to attend the motor show. Mr. Richardson has a repair shop for motor-cars.

Dr. J. D. Walters says a large number of the graduates and former students who are teaching in Riley county expect to attend summer school at the Kansas State Agricultural College with the idea of taking up special work.

W. A. Coe, '96, who has been living at Blackfoot, Idaho, has moved to Boone Colorado, where he will be superintendent of the Orchard Park Farming Company. E. H. Webster, '96, and W. M. Jardine are stockholders in this company.

Mrs. Jessie (Bayless) Staver, '98, writes from Boone, Colorado, where she and her husband have bought an eighty-acre farm in Orchard Park, twenty miles east of Pueblo. Mrs. Staver's mother recently died of pneumonia. She was buried at Yates Center, Kansas.

A. L. Hallsted, '03, and Mamie Helder Hallsted, '04, stopped in Manhattan for a few days' visit with Mrs. Hallsted's parents, Mr. and Mrs. P. C. Helder, while enroute from Washington, D. C., to Hays, Kansas. Mr. Hallsted is a special agent in the Bureau of Plant Industry. He is stationed at the Hays Branch Experiment Station.

Much interest is evinced in Prof. Beall's series of word studies. The first of these was in the current *Interstate Schoolman*. The *Nebraska Teacher* is to publish one in the March number.

TO BEAUTIFY THE LAWN.

Any Yard Can Be Made Attractive With Small Cost.

Spring will soon open with its bright, mellow days, and thoughts will naturally turn towards the garden and the lawn. The lawn, especially in the smaller town, is often neglected. With a small expenditure any lawn can be made beautiful.

Make a rough sketch of the scheme of planting, if necessary, and with the various trees and shrubbery desired. Schemes have been successfully worked out for both large and small lots with results that well repay for any energy expended.

If the lot is small, say 40 by 150 feet, choose the low-growing shrubs, such as the spiraea of either the prunifolia, thunbergii or bumalda families.

These are hardy, low-growing plants about three feet in height. The spiraea thunbergii has very fine, light-green foliage, with little white flowers scattered along the branches. The spiraea bumalda, of the variety anthony waterer, is a very free flowering shrub, with crimson flowers. It is compact and low in growth. Spiraea prunifolia has drooping branches, with double white daisy-like flowers. The leaves of this variety assume brilliant hues in the fall.

In larger lawns larger shrubs should be used. Such common shrubs as the snowball, the Persian lilac, and the Japanese quince, are excellent. Besides these there are the mock orange, the golden bell, the spiraea vanhouten, and the pearl bush. The dogwoods and evergreens work well in the decoration of a large lawn.

Of course these are not all that are needed for a beautiful lawn, for in fact the important thing is a thick, well-kept grass sod, the carpet, if you please, upon which to set the scenery. The cannas, hollyhocks, coleus and geraniums are necessary, but should be used only as borders, or some of them in porch boxes. Rose-bushes are often desired, and the hardier varieties should be obtained and placed together in rows or beds, as single rose-bushes soon grow to limbs and appear unsightly.

If the house is near an alley, plant a row of California privet, which will form a thick hedge, screening the house from that side and also aiding in the general landscape picture.

It is preferable when buying to get two-year-old stock. When setting out the roots, keep in mind the picture desired.

The house should not be shielded but made to blend with the surroundings. Keep the center of the lawn clear, and never cut up a good sod into flower beds. If the smaller flowers cannot be used in borders, place them in the rear garden. Plant the shrubs in clumps or masses in corners and angles, ignoring straight lines as much as possible.

Early spring is the best time to set out new plants or divide old ones. If the home lawn is to be made a subject of admiration next summer one must get to work immediately, so that when spring opens up dirt will fly in earnest.

SELL YOUR OWN PRODUCE.

Families and Hotels and Restaurants Would be Regular Customers.

On the average farm the poultry yard is superintended by the housewife. She takes the eggs and poultry to the merchant in town and she gets just the price the merchant desires to give her in merchandise.

A number of persons in the town would be glad to get fresh butter and eggs at a considerably higher price than the merchant pays. Hotels and restaurants will contract for your produce the year round. It is a little more trouble to deliver the produce to private families, but they are always eager to get fresh country products, even at a substantial advance over the general market price.

TO UNITE THE ALUMNI.

NEW CONSTITUTION OF ASSOCIATION SHOWS IMPORTANT CHANGES.

Names of the Directors of All the Local Alumni Associations Should Be Sent as Soon as Possible to Director E. H. Webster.

Has the alumni of the Kansas State Agricultural College read the new constitution of the association?

Several changes have been made to bring the members into more organized association, and to keep them in closer touch with one another. The number of the alumni has reached such proportions that this organizing is no small task.

The changes made in the plan of the control of the association, the election of the directors and their duties, are incorporated in Article IV of the new constitution. It says:

"The control of the association shall be vested in a board of directors, one member of which shall be elected by each auxiliary organization and three by the association at its annual meeting. The directors shall be elected for a term of three years, but the three directors elected at the first meeting of the association after the adoption of this constitution shall be for terms of one, two and three years, respectively."

"Each local organization of alumni having a membership of not less than twenty shall be entitled to elect one director, and an additional director for every additional fifty members. The senior director elected by the Manhattan Alumni Association shall be in charge of the organization of the board of directors and the annual elections."

The new board desires to organize, and to assist it in this the names of the directors of the local associations should be sent to Director E. H. Webster, Manhattan.

Under the present plan reunions of all the alumni were held every three years, during Commencement week.

CHANGE IN REUNIONS.

It was decided at a recent meeting of a majority of the directors-elect to make a radical change in the manner of holding future reunions.

The classes of '67, '71, '76, '81, '86, '91, '96, '01, '06, and '11 will hold their class reunions next Commencement, the succeeding classes the year following, and so on in their regular order. By this arrangement every graduating class will have a reunion in five years, and every four years hereafter. Class secretaries should interest themselves at once to see that their classes are out in full force next Commencement. An alumnus will have the privilege of attending the Commencement exercises, being present at the alumni-faculty banquet following the graduation program, and of enjoying a social evening in the new gymnasium.

CLEAN UP THE PANTRY.

A Few Hints, Also, as to Forethought in the Building.

There are no strict rules regarding the size, shape and arrangement of a pantry. This depends upon the size and arrangement of the kitchen. A small kitchen needs a large pantry, unless the kitchen is provided with cases on the wall for the many things needed in cooking and serving, and a large kitchen usually needs a small pantry. The tendency, however, when one is building a large pantry, is to build it too large so that it becomes burdensome in trying to keep it clean.

The pantry should be conveniently placed so it will not be tiresome to go back and forth as one has to in preparing a meal.

Plenty of ventilation and light is necessary, so that one large, or two small windows are needed. The amount of shelf room is decided by the amount needed for the food and china. If there is no cellar or basement, the canned fruit must be stored in the pantry on shelves built well up to the ceiling.

The best material for the walls is tile, and for the shelves, hard pine, or some hard wood that does not readily absorb liquid. It is covered with enamel cloth or painted with enamel, the best color being white. If a dark color is preferred, a stain is good.

To keep food and china away from dust, either a sliding glass door or one

that opens out is placed in front; the sliding door may slide back and forth or up and down. Where one economizes in space, the sliding door is better.

Beneath the food pantry there are zinc-lined flour and sugar bins, covered with bread and cake board, which is moved back and forth as needed. Beneath the china pantry is a safe with hangers for the pans and kettles. This is covered with a wooden door.

The sink should be in the pantry. To have it there will save many steps. The sink usually is of enamel or porcelain, but in choosing it get one with round corners to collect particles. A new form of sink trap is used in home sanitation in the Kansas State Agricultural College. Undoubtedly it will prove successful, although more expensive. It is cylindrical, and so arranged that the water passes over a rough surface which collects the grease. It rests on the floor and is cleaned every day.

Too much cannot be said of the cleanliness of the pantry. The pantry should be gone over every day and all left-overs collected; the shelves rubbed off with a moist cloth, and the pantry kept perfectly sanitary.

MEALS 3½ CENTS A DAY.

Three Appetizing Menus Are Given That Also Are Wholesome.

Thirty-one and one-fourth cents for your daily meals. Is that too much? Too little? That is what these menus cost—allowing that the roast beef left over from dinner will be used the next day for croquets.

BREAKFAST	
Baked Eggs	Stewed Apricots
<hr/>	
DINNER	
<hr/>	
Roast Beef	Mashed Potatoes
Parker House Rolls	Creamed Peas
Caramel Custard	Coffee
<hr/>	
SUPPER	
<hr/>	
Fruit Salad	Cheese Pudding
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Baking-powder Biscuit	
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Dutch Apple Cake	

SOME BASEBALL PROSPECTS.

Kansas Aggies Have an Interesting Schedule for this Spring.

The Kansas Aggies and the State University have resumed athletic relations, suspended a year ago because of the refusal of the Aggies to play under Missouri Valley Conference rules. Four baseball games have been scheduled with the K. U. team: two at Lawrence April 14-15 and two at Manhattan April 21-22.

This means two teams for the Aggies this spring. The Missouri Valley team will play until after the K. U. series, when it will become a second team, giving place to the more seasoned veterans eligible to play under Topeka Conference rules.

Young and Billings, with Cleland, Hall, Ray and Lester Pollom, and Larson from last year's tyros, will form the nucleus for the Missouri Valley collection of ball-tossers.

Preceding the K. U. series, the Topeka White Sox probably will open the series here April 7. Nebraska Wesleyan, April 11, will give the Missouri Valley aspirants some good practice for their Lawrence trip.

Washburn is scheduled for April 25,

under Topeka Conference rules. Fairmount is expected April 29, though the contract has not been signed. The list of offerings for May will include Tarkio, Warrensburg Normals, Kansas Wesleyan, Bethany, Kansas State Normal, Baker, and possibly Drury. The team will not make any trips outside of Kansas this spring.

Several trips through the state will be arranged.

A game that will attract much attention in Manhattan is

MAKE THE HOME MODEL.

IMPROVE THE COUNTRY HOUSE BY A LITTLE WATCHFULNESS.

Those Things Which the Builder Should Closely Observe in Order to Obtain the Comfort and Happiness Which He Desires.

Every one longs for a home and strives to obtain one. All desire the best comforts and luxuries. The country home, especially, could be improved. All the conveniences that the city affords can be had in the country.

In erecting a model country house many things are to be considered: Its relation to directions, the water-supply, drainage, plumbing, wiring for electricity, heat, chimney, ventilation, nature of the soil, the arrangement of rooms, bath-rooms, closets, stairs, the materials of construction, adorning, and painting.

The most important question is the site. A plot with a gentle slope is best. This will prevent a damp cellar, enable one to build a reservoir cheaply, and gives an opportunity to dispose of sewage. Placing the well above, and the barn and other buildings below, will prevent sewage from draining into the well. A gravelly or sandy soil, which is fertile enough to grow blue-grass and trees, is ideal. A few trees add much to the beauty and comfort. Two rows of evergreens on the north side make good shelter.

Few farmers have a water reservoir. The water is pumped by a windmill or a gasoline engine. If a gasoline engine is used it may also serve the purpose of running the dynamo for electric light. If a hot-air furnace is used it can be fitted to a water-tank to warm the water for the kitchen and bath-rooms. The well should never be placed within 200 feet of the cesspool. If the house is on a gentle slope this danger of contamination can be avoided by placing the well higher up on the slope.

The outside of the house should be neat and attractive. It should have at least three coats of paint. A veranda adds much to beauty and comfort. The Virginia creeper gives the veranda a tasteful and home-like appearance.

The yard should not be overlooked. As a rule, the lawn appears better if not fenced; a gently sloping lawn gives the best effect. Ornamental shrubs may be planted with good effect. The trees may be arranged in rows or placed irregularly so as to give the appearance of a grove. White elm, box-elder or catalpa make good shade trees. Walks should be laid where necessary, and then as direct as possible. Flower beds along the sides of the walk are very attractive.

FROM 130 HENS \$205.

Mrs. A. J. C. Lowe, of Pleasanton, Has a Happy Story to Tell.

From *The Pleasanton Observer*.

Mrs. A. J. C. Lowe, living west of town, has this report to make to the *Observer* on the profits of poultry raising. She has principally the White Rose Comb Leghorns. She and Mr. Lowe kept account of the business last year, and when the books were balanced they had sold \$205 worth of eggs and poultry, besides having plenty of eggs and chickens to eat. They had 130 hens to start and have a few more at this time. The feed consumed by the chickens was estimated at \$50, leaving a profit of \$155 on an investment of 130 hens, which at say 40 cents each would amount to \$52, making a net profit of 300 per cent. Or, in other words, \$155 for the trouble of handling the chickens.

Several trips through the state will be arranged. A game that will attract much attention in Manhattan is one which will be played by the Kansas Aggies with the University of Keio, of Tokio, Japan. This team comes to the United States to play the University of Wisconsin, and will take on several other schools before returning to the Orient.

Good roads without money? Certainly, and the hardest part of the whole problem is the making of a road drag. The ordinary farmer can, in two hours, complete the King road drag with the ordinary tools at hand, and it will wear indefinitely.

GOOD ROADS FOR NOTHING.

Something About Making a Drag, with Suggestions for Its Use.

Good roads without money? Certainly, and the hardest part of the whole problem is the making of a road drag. The ordinary farmer can, in two hours, complete the King road drag with the ordinary tools at hand, and it will wear indefinitely.

K. S. A. C. BOY A BARBER.

SOMETIMES EARNS \$6 WITH THE SATURDAY RUSH—\$35 A MONTH.

A Trade is a Big Help to a Boy Earning His Way Through School—Students Say, "Take No Job Unless You Need It."

A student who earns from \$35 to \$40 a month goes to college regularly. He goes to his classes in the morning, works in the afternoon, and has the evening for himself.

When he decided to go to college, this young man began to think of a way in which he could pay his expenses. As he did not have the money, he knew he must earn it. He decided that a trade, such as how to operate a typewriter, or set type, or do some other special kind of work, would help.

By looking through the "want" columns of *The Kansas City Star*, he learned that barbers were needed more than any other class of workmen. He thought this over and talked to a barber as to how much he could earn. Saturdays, he was told, were good for probably \$6. The barber advised him never to learn the trade.

COULD EARN \$6 SATURDAYS.

"But," thought the student, "if I could earn \$6 on Saturday I could have the remainder of the week to give to my school work. This would be worth something." He decided to learn the trade.

Here's where the trouble began. To tell of it would be to tell a hard-luck story. Although it is not without its disadvantages, the barber's trade, in this case, proved a great benefit as a means to an end.

Anyone likely to be wholly dependent upon himself should master some trade, he says. It should be mastered, too, for every profession has its "jack of trades."

PERSEVERENCE WILL WIN.

But, whether you have a specialty or not, you can earn your way through college. It may not be easy at first, but you can find something to do. And while you are doing this a chance for a better job may appear. In the meantime you can "get wise" to a few things necessary in earning your way.

If you have no specialty it would be better to have enough money to keep you a few weeks without working.

Working one's way is good fun, he says, and has its interest. But one who does not have to work should not do so, because his time is worth too much. And then it may spoil some other fellow's chance who needs the work.

EASIEST MONEY FROM HOGS.

Capital Small, and Actual Work Averages Two Hours a Day.

The easiest money on the farm is made from hogs. The outlay of capital is small. The work does not exceed two hours daily, and the profits are proportionally larger than from any other line of farm work.

Every brood sow should rear 12 pigs a year. When your sows will not do this it is time to sell them. Every pig at 12 months should weigh 225 pounds. At 7 cents a pound it would bring \$15.75. If this pig is from those reared on alfalfa or run in a wood lot and fed corn at finishing time only, it should not cost more than \$4. This leaves a profit of \$11.75 on every pig, or a profit of \$141 from one sow.

These figures are taken where conditions are right. If the hogs must be kept in a dry lot and fed tankage, corn, or slops from the first, the cost will be considerably increased and may even be doubled, but even at that the hogs are a paying proposition. Of course some years hogs may not bring 7 cents a pound, but some years they may bring 10 or even 11 cents.

The average farmer can care for four or five sows with very little trouble; but keep good ones, as scrubs are likely to lose money for you.

The Kansas State Agricultural College will publish a bulletin later giving detailed records of the cost of producing pork under a variety of conditions.

Take a log of some light wood, such as box-elder, elm, or the butt end of a telephone pole. It should be twelve inches thick. Cut it seven feet long for an ordinary team or nine feet long for an extra heavy team. Split the log into halves, and bore three two-inch holes through each half in such a manner that the rear half, when set on edge, will stand sixteen inches to the left of the front half. Take some pieces of timber, of proper dimensions, hew them down so they will fit the auger holes, drive them in securely and wedge the ends.

Both halves of the log must be set on edge with the flat side in front after they are fastened together 30 inches apart with the cross pieces. With a piece of old wagon tire, or a three-inch piece of sheet steel four feet long, the front and right-hand face of the front log should be shod. This is the cutting surface of the drag.

Insert one end of a log chain of sufficient length through another auger hole bored near the right-hand end of the front log, and fasten with a pin through the link. Fasten the other end around the connecting piece at the left-hand end of the front log. The driver may stand on a platform of loose boards cleated together. The two halves of the log which make the drag should be thirty inches apart. If set close together they will not clear themselves of mud. Put on the double-trees and you are ready to start.

If the drag is used when the ground is wet, but not sticky, it will kill the small weeds along the road. Dirt roads should be made one layer at a time. This may be accomplished by dragging after every rain.

KEEP WELL-BRED ANIMALS.

You Will Find They Give More Profit Than the Scrub.

No farmer can hope to attain success by rearing scrub plants and animals. The day of "anything will do" is past. As land values continue to increase, and competition becomes keener, it is imperative that the farmer meet the changing conditions.

It costs no more to rear a well-bred animal than a scrub. In fact, the well-bred animal consumes less, because it does not require as much feed to keep in good condition. How many times a farmer has been heard to remark about a poor, scrubby animal, "That critter is eatin' it's head off," which is figuratively if not literally true.

"Well," some farmer says, "I can't afford to raise thoroughbred stock to sell on the market." Then don't sell on the market, but rear blooded stock and sell to neighbors and others who, for various reasons, want to improve their own stock. Combine good breeding, good feeding, and good care. Advertise, and you will obtain fancy prices for all of your surplus animals.

WHAT TO WRITE ABOUT?

Miss Ada Rice, Instructor in English, Has a List of Interesting Subjects.

When a student is told to write a story, the first thing that suggests itself is, What shall I write about?

If the instructor assigns a subject very often the student dislikes the assignment. If the student is left to choose his own subject, he often will have hard work in deciding. Sometimes he even comes to class with the excuse that he cannot make up his mind what to write about. The point is, that the student needs subjects in which he is interested.

To aid students taking narration and description, Miss Ada Rice, instructor in English, has prepared a list of interesting subjects. If the student is not interested in what he is writing, he will most certainly fail to interest his readers.

Here are a few of the subjects: The Cooking Club's Banquet; The Modern Husking Bee; The Kansas Harvest Field; and A Day in the Short-Grass Country.

Let all your things have their places; let each part of your business have its time.—"Poor Richard's Almanack," 1733.

PIANO KEEPS YOU WELL.

MUSIC ON THE FARM BRINGS REST, AND REST BRINGS HEALTH.

A Student's New Idea of How Music Will Cheer up the Whole Family and Save a Few Doctor Bills.

A piano in a farmhouse might be the means of saving a doctor bill. That's a queer thing to get into one's head, but this is how it might be done.

Take your own case, for instance: Your daughter has come home after four years in the Kansas State Agricultural College. She knows how to cook and sew and care for the house, but also she knows how to play the piano. Helps you a lot to hear a bit of good music at night—if it isn't too late. You come in from the fields tired and ready to snap at people, pretty easily angered. Perhaps you are already that way. After a hard day's work, before you ate your supper, you were more likely to be impatient than after you had eaten. If it was a good supper you felt rested. That is because the supper pleased you. The pleasing things, then, are the restful things.

Music is said to be a succession of sounds pleasing to the ear. Music, then, will rest you. It will do more than that, it will put you in a more cheerful frame of mind. Reading might please you, but to some persons reading is work, and they soon nod and go to bed in no better frame of mind than before. Reading, alone, will not do.

But what has this to do with a doctor bill? One doctor in giving rules for good health says: "Cultivate a cheerful state of mind. Many persons have been known to die in a fit of anger."

An optimistic mood, then, is conducive to health. And of course with health you need no doctor. See?

But this is not all. Consider the advantages of going to bed in a cheerful frame of mind instead of kicking one shoe off in one direction, throwing the other at the cat, and going to bed sore.

Refinement follows education. Art follows refinement. But music pleases the ignorant as well as the refined. It is, however, a different class of music that appeals to these two classes.

A farmer in Stafford county, Kansas, bought a phonograph. It gave him much pleasure to operate it for his friends. While it performed he told them how much cheaper he bought it from a mail order house than he could have bought it from the local merchant.

That was eight years ago. Now the phonograph is under the bed. In the meantime the rural mail carrier has been bringing him a daily paper; also, various magazines which he got very reasonably by taking advantage of clubbing offers. A piano is in the parlor. And now of an evening when he reads, his daughters play for him. He is a broader-minded and happier man than he was eight years ago.

WILL DEBATE AT FAIRMOUNT.

Browning-Athenian Team Won in the Final Preliminaries.

W. B. Honska, Athenian; Edgar Houk, Athenian; Ivan Moorhead, Franklin; E. A. Vaughn, Hamilton; G. G. Pingree, Alpha Beta; and L. H. Gould, Hamilton, will represent the Kansas State Agricultural College in the debates with Fairmount college next spring.

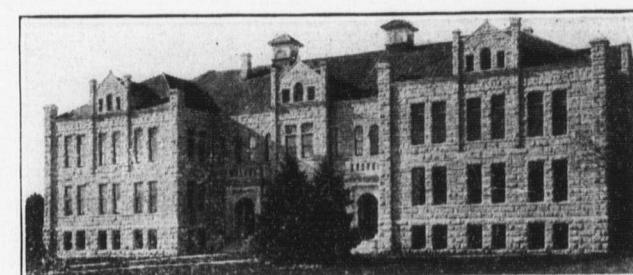
These men have won places in the final preliminaries. The Browning-Athenian team, Miss Nelson, Mr. Honska and Mr. Houk, debated the Franklin-Ionian team, Miss N. Hickok, Mr. Moorhead, and Mr. McNeal.

The Browning-Athenian team had the negative and won, although only two members of the team were placed. Miss Nelson won fourth place.

The Hamilton-Webster team, Mr. Vaughn, Mr. Gould and C. J. Stratton, had the affirmative side and debated the Alpha Beta-Eurodelphian team, Mr. Pingree, Miss Williams, and R. E. Gwin. The affirmative side won. The three men placing from this debate tied for first place.

INDUSTRIAL CLASSES For Teachers

AT THE
Kansas State Agricultural College



Domestic Science and Art Hall
One of a group of sixteen college buildings devoted to industrial education

Spring Term, March 28

Summer Session, Six Weeks, June 15

Four thousand rural schools will close by March 28. The Kansas Agricultural College, to meet the great demand for sound instruction in Agriculture and Home Economics will offer classes in its Spring Term in the following subjects:

Elementary Agriculture, Soils, Farm Crops, Live Stock, Poultry, Small Fruits, Market Gardening, Landscape Gardening, Plant Propagation, Cooking, Sewing, Dressmaking, Home Decoration, Wood-Work, Iron-Work, Mechanical Drawing, Object Drawing, Methods of Study, Methods of Teaching, Industrial Education.

In the regular schedule for the Spring Term will be found elementary and advanced classes in Botany, Physics, Chemistry, Entomology, etc., all taught with an economic application.

For further information address

H. J. Waters, President,

Manhattan, Kansas

TO CURE THE CRIMINAL.

WARDEN CODDING TOLD STUDENTS THE OBJECT OF STATE PRISON.

Prison Methods Were Explained for Educating the Farmers and Making Desirable Citizens of Them When They Have Served Their Time.

J. K. Codding, warden of the State Penitentiary at Lansing, spoke in chapel one morning last week. Codding had a subject that drew and held the interest of the large crowd that attended chapel that morning. He spoke on the work of the state prison as a whole, and he emphasized the fact that the object of the prison was not so much the reformation of criminals as the prevention of criminals. He also showed that the present organization of prisons is merely an outgrowth of the "Line Law" of primitive man, which was to protect the weak from the strong and the community as a whole from those whose desire was to destroy. The law was then carried out on the principle of "an eye for an eye and a tooth for a tooth." Many people seem to think that this is the plan of action of the great prisons of to-day. This conception is radically wrong.

ONLY 38 PER CENT NEGRO.

There are to-day about 900 prisoners in the Kansas State Penitentiary. Of these, 38 per cent are negroes; 68 per cent are under thirty years of age; 48 per cent say that liquor was the direct cause of their downfall; 10 per cent are illiterate. There are four distinct influences that to-day send men to the penitentiary; homelessness, idleness, dissipation, and ignorance.

A night school is maintained at the prison with 400 men taking the work. Their text-book is printed in the prison. It is a combined arithmetic, reader, speller, and grammar. This school gives the illiterate men in the prison a chance for the fundamentals of an education which they would never take advantage of if offered to them under any other conditions. The prison

supplies its own bookkeepers, stenographers, etc.

There are to-day 210 men out on parole from the State Penitentiary.

The prisoners are divided into three large classes: The natural born criminals, of whom there are 10 per cent; of this number, 45 per cent are insane. Forty per cent are habitual criminals. These are sub-divided into the weak, habitual criminal and the professional, habitual criminal. The remaining 50 per cent are classed as accidental criminals, resulting from bad home training, passion, and other causes. Of those who go out from the penitentiary 60 to 65 per cent never return.

THE HOBO AT WORK.

Soap, soup, and salvation is the order of the attempted reformation of the criminal in the Kansas State Penitentiary. Most of the men who go into the prison are of the hobo type. When the hobo enters the prison he is put to work in the coal mines. The public in general thinks the coal mines of the penitentiary are the worst thing about that institution, but Warden Codding considers them the best method of reformation in the penitentiary. Aside from work, Mr. Codding also finds it important to get the men interested in athletics.

Another thing that the men in the prison are interested in is the weekly Bible class. A few months ago the prison Bible class had 60 men enrolled; there are now 300, and it is constantly growing. Each man has a Bible in his cell, in compliance with the state law to that effect.

A Freshman Class Party.

The freshman class gave a party the night of February 18 in the Women's Gymnasium. The rooms were decorated with blue and orange, the class colors. One of the features was a mock sophomore class meeting, which quickly adjourned at the sound of the freshmen yell. After a short literary program, refreshments were served.

THE KANSAS INDUSTRIALIST

Volume 37

Kansas State Agricultural College, Manhattan, Saturday, March 4, 1911

Number 22

ILL. 4,638, KANSAS 4,608.

WHY THE SUNFLOWER STATE PAYS HIGH FOR EDUCATION.

More Students in Proportion to its Population Than Any Other State in the Union
—Compared With Missouri and Illinois.

Kansas is paying more for the support of educational institutions than any other state in the Union. This is the way Henry J. Waters, president of the Kansas State Agricultural College, has figured out the situation. But Kansas has more students in proportion to its population, President Waters adds, than any other state in the Union, not excepting Massachusetts, in which, be it remembered, is Boston, self considered the home of education and culture.

Kansas, with a population of less than 1½ millions, had, in 1910, more students in colleges than had Missouri, with more than four million population.

Illinois, in its agricultural college and university, had 4,638 students in 1910. It required \$1,639,000 a year to operate the institution.

Kansas, with its agricultural college and university separate, has 4,608 students—*thirty fewer*. Kansas spent only \$954,000 a year—*six hundred and eighty-five thousand dollars less*.

A STUDENT TO EVERY 154.

Kansas has one student for every 154 persons in the state. Moreover, there are more students in the state educational institutions of Kansas than in those of any state in the Union of anything near its population.

More than 50 per cent more than Wisconsin, with its population of 2,333,860.

And more than 40 per cent more than Texas, with a population of more than 3,896,000.

This being true, President Waters inquires, why should it not cost more for educational institutions? It is not a question of the total expenditure, but of the cost per student that will determine whether the state educational institutions are costing more than they should. In this connection it is interesting to see the actual figures as to this cost. It costs Kansas \$107 a year for every student in its agricultural college, based on an enrolment of 2,308 in 1910-1911. With an enrolment of 2,055, Iowa pays \$214 a student. Purdue University, with 1,804 students, pays \$273. Michigan, with 1,162 students, pays \$262. At this point, too, every resident of Kansas should be proud to know that the western agricultural colleges have three, four and five times as many students enrolled as are cared for in the first states that joined to make the original Union. The agricultural college of Delaware has only 184 students, at an expense of \$370 each. Maryland, with 220 students, pays \$539 a student. New Hampshire has 325 students and pays \$345 each for their education. New Jersey has 512 students at a cost of \$330 a student. North Carolina has 446 students, who cost \$288 each.

WHY SHOULDN'T IT COST MORE?

The agricultural college of Kansas will have more than 2,500 students before the end of the spring term. Why should not the state pay more than any other state in the Union?

But this is not the only way in which Kansas stands alone with a record. The present enrolment of the agricultural college and the state university combined is 4,608, and the total cost per capita \$138. In Missouri, where the agricultural college and the university are one institution, the enrolment is only 2,903 and the average cost \$200 a student. It is, perhaps, true that the total cost to the state may be greater where the agricultural college and the university

are separate, but the people should remember the greater number of boys and girls educated.

The appropriation committee of the Missouri legislature has recommended for the university, including the school of mines, for the next biennium approximately \$800,000 a year. It is probable that the appropriation for the agricultural college and the university of Kansas combined will be \$900,000 a year.

This means, Mr. Kansas Taxpayer, that it is costing Missouri \$800,000 a year to educate 2,900 students. Kansas, with approximately \$900,000, is educating about 4,700 students—nearly *two thousand more than Missouri, for only a hundred thousand dollars more*.

Kansas has more students in colleges than has Massachusetts, with a population of approximately 3½ millions.

TO BE HOUSEKEEPERS.

THE GIRLS IN THE SHORT COURSE GAIN WIDE KNOWLEDGE.

Students Learn to Care for the Ill; to Cook, to Sew and do Other Things That Make Happy Homes.

What would you feed a typhoid convalescent in your home? You don't know, do you? If you had taken the girls' short course at the Kansas State Agricultural College you would know. According to a girl who is taking the course, you would be safe in proceeding this way: For the first few days after the fever breaks, feed the patient sparingly the raw white of an egg with water and a little fruit juice (grape juice is barred on account of the sugar it contains). Any girl who has taken the course can be depended

upon to make the mixture appetizing. A point worth noticing is that sugar is strictly forbidden. As the patient gains in strength cream may be added. Several days after the convalescent is able to sit up, it is safe to allow him cooked food, such as custards.

The next food is poached eggs and chipped beef. The meat ration may be increased as the patient grows stronger. Foods containing a large amount of cellulose, such as raw apples and cabbage, are forbidden for at least six weeks after the patient is able to sit up. This prohibition does not apply to baked apples.

HELPING THE DOCTOR.

Knowledge such as this is only a small part of the practical things these girls are learning. The members of the class dissected the skeleton of a manikin last week, studying its structure with special reference to those places where injuries are most likely to be sustained. A broken bone, a sprained ankle, a twisted knee, a bad burn—these girls are equal to any such emergency. They can take the place of the trained nurse. They can help the doctor intelligently. In an emergency where a doctor can not be obtained they could, in a measure, take his place.

But the girls' time since Christmas has not been spent entirely with band-

ages and disinfectants. The model kitchens in the basement of the Domestic Science building have received a good deal of their attention. These girls learned the essentials of plain cooking last fall; the best parts of the beef, and how to utilize the less popular pieces; how to prepare the every-day meals in an economical, nutritious, and at the same time attractive manner. Bread making, even the "salt-rising" kind, is no secret to these Kansas girls. Since Christmas their attention has been given more especially to serving meals, and to preparing and serving those side dishes—which might be called fancy cooking—that make dining a pleasure.

To live on, even when life seems all a failure and the comfort of life is gone, to count patient living the real thing, with or without comfort—that is to be truly brave.—*Phillips Brooks*.

gymnasium and society halls.

As the bill was returned to the House Thursday afternoon for concurrence, it gave the college the agricultural building, provided the fund for the gymnasium and society halls, and reappropriated the student fees—which the House had declined to do. These points were not considered likely to cause any deadlock. The additional \$10,000 for Western Kansas was appropriated to the experiment station.

List Your Seed Grain.

If you have any good seed grain, you should send a sample to your state experiment station, stating how much you have and the price you want for it. Your name will be listed and sent to those who ask for good seed.—*The Missouri Ruralist*.

WHY NOT HAVE APPLES?

IT'S YOUR FAULT IF THE WORMS TAKE THE CROP.

An Orchard Needs Care, and if You Don't Know How to Give it, Write the Agricultural College and Get a Few Valuable Pointers.

Do the worms and the scab harvest most of your apples? Would you like to have apples to put in your cellar for the winter to send with the children to help out the noonday luncheon and to eat in the evening when the family is gathered in the sitting-room before bed time? There is a way, except when Jack Frost steps in and kills the entire crop, and before long it will, in most cases, be possible to prevent even his work. If your trees, that are old enough, do not blossom there is something wrong with them or with the care you are giving them, and you should find out what is the matter and make them bear, or replace them. A letter of inquiry addressed to the agricultural college, giving full particulars, may bring you the needed information.

INSECTS GET THE CROP.

Insects and fungi are the most common harvester of the crop. It is due to their work that much of the fruit is knotted, gnarled, poorly colored, speckled, and rotten, and that even the fair, smooth apples have worms at their cores. To prevent the work of insects and fungi and to raise clean, smooth, sound apples, the trees must be sprayed with mixtures that will destroy the parasites but will not injure them or the fruit they bear.

This is the work of the domestic art department, presided over by Miss Antonetta Becker.

All these things are part of the science of home making. That is the aim of the course, just as it is the aim of the two similar long courses, one in domestic science and one in domestic art, offered by the Kansas State Agricultural College to young women—to educate home makers. Seems as though it ought to be worth while, doesn't it?

THE BILL HAS PASSED.

Ten Thousand for Experiments In Western Kansas Added by the Senate.

The appropriation bill, without further amendment excepting the addition of \$10,000 for experiment work in Western Kansas, passed the Senate Thursday. President Waters heard the news at his house at luncheon over the long distance telephone.

The chief items over which the college administration was concerned, in the interest of good service, were the fund for maintenance—the institution's bread and butter: a physics building; an agricultural building, or at least the first wing of one; a barn for animal husbandry, and funds with which to complete the half-finished

in one of the home orchards, consisting of 200 trees, including 33 varieties, the yield of 12 trees selected as average for making accurate counts was 13 bushels of merchantable fruit to the tree, while the unsprayed orchard produced practically nothing worth picking. In another home orchard the sprayed trees produced eight bushels of merchantable fruit to the tree as compared with three bushels from the unsprayed.

SOME GOOD VARIETIES.

These home orchards are like yours. One consisted of Red June, Roman Stem, Maiden Blush, Jonathan, Ben Davis, Haas, Willow Twig, Rall's Genet, Dominie, Mammoth Black Twig, Missouri Pippin, Northern Spy, Yellow Transparent, Lawver, York Imperial, Arkansas Black, Tetofkey, Fall Pippin, Lowell, Gano, Romanite, Winesap, Wagner, High Top Sweet, Fanny, Rambo, Early Harvest, Wolf River, Rome Beauty, Baldwin, Primate, Smith Cider, and Belle Flower. The other consisted of Winesap, Missouri Pippin, Ben Davis, York Imperial, New Town Pippin, Rall's Genet, Wealthy, Red Astrakan, Lowell, Huntsman's Favorite, Rambo, Early Harvest, Chenango Strawberry, Smith Cider, Lawver, Jonathan, Maiden Blush, Belle Flower, and Red Winter Sweet.

Are not these results worth while? Would you like to know how they were gotten? Write to the agricultural college and learn about it.

Wire Guard.

In building or remodeling a house, before the final boards are put on the pantry have it lined throughout with mosquito wire. It will make it mouse-proof.—*Racine Journal*.

So long as we love, we serve. So long as we are loved by others I would almost say we are indispensable; and no man is useless while he has a friend.—*Stevenson*.

A Few Pertinent Facts.

The Illinois agricultural college and university had 4,638 students last year—cost \$1,639,000 for the year. Population of Illinois about 6 millions.

Kansas agricultural college and university had 4,608 students in 1910—only 30 fewer—cost \$954,000 a year. Population of Kansas 1½ millions.

THE KANSAS INDUSTRIALIST

Issued weekly during the college year by the Kansas State Agricultural College, Manhattan, Kansas.

PRES. H. J. WATERS Editor-in-chief
PROF. C. J. DILLON Managing Editor
DR. J. D. WALTERS Local Editor

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The typesetting and other mechanical work is by students in the school of printing, of which J. D. Rickman is superintendent. Both these departments are in Kedzie Hall.

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EDITORIAL IDEALS.

The advanced class in industrial journalism in the Kansas State Agricultural College has been interested recently in considering the theories that apparently underlie or influence the conduct of editorial pages throughout the United States. It is held, in this department of instruction, that editorial writing cannot be taught—that if a writer has no opinions concealed within him, no faculty yet organized can put them there. This amounts, almost, to the belief that editorial writers are born, not made, and to a certain degree this is true. Some men work for thirty years in newspaper offices and express only one opinion—and that one will not be reproduced here. Others begin to write editorially before they escape from the undertakers' run and, if not suppressed, find themselves eventually cooped in behind an installment plan desk in which mice abide, and proceed, blithely, to change the public mind.

In connection with these theories and ideals of editorialism the head of the department recently analyzed fifteen leading daily newspapers and gave his fifty students the result. This result was interesting. The collection included several kinds of papers, from the yellowest of the yellow to the ultra-conservative. As an example of the very yellow, the New York *American*, with two-page headlines of the Gould-Decies wedding, was discussed. They covered all kinds of politics, from the Jeffersonian democracy of the Louisville *Courier-Journal* to the conservative insurgency of the Kansas City *Star*; the editorial so wonderfully made that the paper's policy remained a secret, and the editorial that was brutally frank.

Only one of the fifteen papers printed editorials more than a column in length. Most of them were shorter than a column. The longest editorials were in the New York *Times*, one column or more in length, and the shortest in the New York *Herald*. The average editorial was less than half a column in length.

In these fifteen papers were thirty-three editorials on politics, chiefly national; five on the comic opera war in Old Mexico; one on "The Melting Pot"; two on religion; one on a scientific matter; two on the cost of living, and one on art. Twenty-five discussed news items. Six of the papers maintained departments for "letters from the people."

This was the week of February 12, Lincoln's birthday, but only three papers mentioned Lincoln. Five talked of city taxation; three were badly worried about the recall; one discussed social hygiene; three the Panama exposition; one was concerned about the reciprocity treaty with Canada, and three wrote of local politics. One devoted nearly a column to a eulogy of babies.

The New York *Herald* had the driest and dreariest editorial page in the collection, with one "two-stick" piece about Lincoln, a little piece on art, and one on education. The New York *Times* had no paragraphs. It was a discouraging page. The editorials were long and insufferably dull. Eight of the papers had humorous or semi-humorous columns, such as the Starbeam column in the Kansas City *Star*. Some of the humor was

worthy and carried points worth reading, but much of it was trivial and some was cruel.

Seven of the papers carried news dispatches on the editorial page. The Boston *Globe* had a display advertisement there. Ten bore, at the top of the first column, the names of the men responsible for the papers. Of the fifteen, only three expressed themselves in favor of the reciprocity treaty with Canada. The others, excepting one, said nothing, and that one was against it. The one paper that printed an editorial on a religious subject urged that the Gideons be permitted to put Bibles in hotels. Not one of the fifteen carried a line to declare its politics. Nine-tenths of the country weeklies and small dailies think a declaration of such principles either a necessity or a defiance. The big dailies express their politics in their editorials, but this is a poor guide in many instances and leaves the reader wondering.

"The editorial that counts now," the lecturer told his class, "is the editorial that tells clearly and concisely the truth about a proposition and then ends. It is no longer proper or popular to wander heavily along with big words that make the reader flounder around like a cow in a cranberry bog. Men are busy nowadays, busier than they've been for a long time, too busy to read a column of anything unless it is actually worth a column. Men of sense no longer blame the political party in power for the crop failures or the weather. Men no longer swallow whole everything you offer. It is becoming yearly more difficult to fool the public, and the editor who tries it will not be long in learning his mistake."

"The editorials in these fifteen big papers show clearly that there is a refusal to accept this or that because it is the theory of 'the party.' Henry Watterson hammers one party almost as freely as another. An entire change has come in five years, and especially in the last three years, over the editorial page. A column or a column and a half will cover all the ordinary paper has to say of the politics of the day, or of any other subject."

WHY HOGS HAVE TAILS.

The hog, says an editorial in the esteemed *Kansas City Star*, is Nature's sedative. A fine tribute to a much maligned beast, and still the writer forgot or wilfully omitted the saddest, most tragic part of the animal's life. Among men the loftiest ideals have to do with self-sacrifice, self-denial. But who gives a thought to the humble hog in its wallow, or heaves a sigh as it grunts and waddles and roots about in happy ignorance of the fact that at noon it must take the fatal hemlock to save its fellows? Not exactly hemlock, but serum—the hemlock of the hog. Hundreds of hogs give up their tails, an inch at a time, and finally their lives, their placid lives of eating and sleeping, that thousands may live and go, in perfect health, to feed a thoughtless world.

Could anything be more elevating, more inspiring? You, Mr. Industrialist, sit snugly in your mahogany chair and puff your Cremona in contentment, but you little reck that near the agricultural college at Manhattan—at the serum plant—a hundred hogs await their doom! Why? So that you, Mr. Editor, and you, Mr. Bunker, and all the others of the city's crowd may get your bacon and ham or side meat or spare-ribs at reasonable prices. You paid precious little attention, didn't you, when you heard of hog-cholera for the first time? It meant no more to you than the foot and mouth disease, or Schedule K in the tariff, or a killing in Timbuctoo. But you let out a howl, didn't you, when the price for bacon went up to 40 and 45 cents? Thought about the cholera then, Eh? Sure you did, and wondered why Someone Didn't Do Something.

This is what Charles Ferguson would call the Crux of the whole story. Someone did do something; that is, something was done. The hogs did it. In little pens, built especially for them, they talked it over. The only way to stop the cholera was

A Golden Text.

Now learn a parable of the big tree: When his branch is yet tender, and putteth forth leaves, ye know that summer is nigh.—Matthew 24:32.

for some to die. Thousands—aye millions—had perished of the plague when the great discovery came that by inoculating healthy hogs with the dread disease they might be made immune. This blood, it was decided—a most peculiar thing, it was—must come from the hog by way of the tail. Stranger still was the decision that it must be injected into the other hog at the ear, the purpose being, doubtless, to cover both ends of the question.

So there they are in their prison pens at the plant, these hogs of which or whom you wrote so feelingly. And there they feed and sleep. Every few days they must face, or rather back up to the block and give another inch of their tails and a quart of their life fluid to save others. Eventually, as the reader must see this have suspected, the tail is no more. This is a tragic day for the hog. It has lived through the cholera, sacrificed its tail to a cause in which every little bit taken from what it had meant just a little bit less—of life. There it slumbers in its bed of straw and idly waits the inevitable hour when, tailless, it must go to its death. Men have wondered for ages why hogs have tails. Let them wonder no more. The tale is told.

THE MODERN NEWSPAPER AND THE PULPIT.

It was fitting that "The Modern Newspaper" should be a subject for discussion at the recent meeting of the Kansas Bible Institute. Between the churches and the best newspapers there can be no real antagonism. Both are laboring for the betterment of the world. The question is not, Which does the most good? The world can not well dispense with either. The editor is as truly a preacher as he would be if he wore a surplice and thundered like Boanerges from the pulpit.

The important question is, "What sort of gospel does he preach?" Does he speak the truth? Does he emphasize the right things? Does he stand for personal and public integrity, for fidelity to duty, for cleanliness of life, for educational, commercial and political progress? Does he put in his paper nothing that he would be unwilling for his own boys and girls to read? Then his work supplements and strengthens the work of the man in the pulpit.

The newspaper has to-day and will have to-morrow a great opportunity and a correspondingly great responsibility. If it meet the opportunity wisely and bear the responsibility bravely, this old world will be increasingly a decent place to live in. Let private and family affairs alone; do not traffic in cheap and petty personalities; leave out indecencies; do not give a column to the latest scandal and a line to the gift of a million dollars for benevolence; promote all that is best in local, state, national and international life—when the newspapers shall write such maxims as shibboleths upon their banners, they will, as truly as do the preachers, help hasten the day,

When "man to man, the world o'er,
Shall brothers be for a' that."
C. M. B.

FARMING AS A BUSINESS.

The book farmer of a few years ago is the successful farmer of the present. The city man who expects to retire to the farm will find himself in the same class with the ignorant farmer, if he has figured his prospects by the standard of a few years ago. Theoretical and practical knowledge are required. Profits will accrue only to the man who makes farming his business. Wages for farm laborers have advanced, and the supply of labor at the increased price is less than that offered at a lower wage. Many farms have decreased in fertility and these must be brought up to a standard at considerable expense. The cost of liv-

ing is affecting the farmer as well as the city man. Not all that a farmer consumes can be grown on his land. Farmers live better now. Opportunities for social intercourse are increasing in the country, and this means new ways of spending money. A farmer must get returns from every square foot of his soil.

To be well fitted for the occupation of farming, a man's life should be rounded out in an agricultural college. He must know more than the rudiments of the calling. The farm must be run on business principles and in the light of some special study. That is why the city man who heeds the call of back to the land may make a failure. Dollars do not lie exposed behind the plow. Every corn stalk does not conceal gold in its husks.

A NEW RAIN RECORD.

Not for 52 Years Has February Had So Much Moisture.

The mean maximum temperature for February was 46.39 degrees; the mean minimum temperature, 24.17 degrees; the mean temperature, 35.28 degrees. While the mean temperature for the month was above the normal, there have been nine years in which the mean temperature has been higher. The highest temperature for the month was 71 degrees on the first; the lowest, 2 degrees on the twentieth.

The highest February temperature for the last fifty-two years was 40.37 degrees in 1882, the lowest 17.88 degrees in 1899.

There were 5.79 inches of rain and melted snow in February, which was 4.59 inches above normal and stands as a record for the fifty-two years that observations have been taken at the Kansas State Agricultural College station. The nearest approach to this was 3.58 inches in 1905. There were nine inches of snow during the month.

The run of the wind for the month was 6611 miles, which was 179.2 miles below normal. There were sixteen clear days, two partly cloudy days, and ten cloudy days.

THE SYMPHONY CONCERT.

Eleven Hundred Persons Heard the Annual Entertainment Tuesday Night.

An audience of 1,100 music lovers heard the annual concert of the Kansas State Agricultural College orchestra in the Marshall theater Tuesday night, February 28. Every seat in the house was sold. The orchestra has established a precedent which it should be the ambition of all future orchestras to equal. This seemed to be the unanimous opinion of the audience as it passed out, and when the audience as a whole is pleased the critics have no room for comment other than favorable.

The work of the orchestra was excellent, but of course the features of the evening were the solos by Prof. Valley and Prof. Brown. Prof. Valley was in good voice, and his Hunting Song and encore pleased the audience. Prof. Brown's violin solos with orchestra accompaniment also were well received.

SLEEP IS BEAUTY'S AID.

Have a Fireplace in Your Bedroom, too, for Ventilating Purposes.

From *The Cleveland Leader*.

The best aid to beauty is sleep. One should sleep from eight to nine hours out of the twenty-four, if possible. If this is so, then thought should be given to the room where so much of our time is spent. The average bedroom is not only too crowded for good taste, but for health. It first should be large and airy, with windows on two walls, if possible, for sunlight is one of the best purifiers we possess. The bedroom should always be fitted with a fireplace, whether one uses it for a fire or not, as it helps enormously to ventilate a room.

Electrical Engineers to Meet.

The next meeting of the American Institute of Electrical Engineers will be Tuesday, March 7, at 7:30 p.m. in C 33. The paper for the evening is: "Advantages of Unified Electric Systems Covering Large Territories," prepared by George Barnard. Several members will discuss the paper. All who are interested are invited.

March.

A bluebird flew from the sunny South,
Bore the winter's snows had fled,
And an old owl questioned him hoarsely how
He thought that he could be fed;

And why he came till he surely knew
That meads were green and the heavens blue?
But the bluebird slept where the woods were dense

And the dry barberries hang,
And he came at dawn to the orchard trees,
And merry the song he sang:
"Oh, the summer I keep in my heart, nor care
For the skies, while their blue in my coat I wear!"

—Lelia Mitchell, in *The Farm Journal*.

SUNFLOWERS.

When a man gets so grumpy that he can see no fun in the world he'd better leave it.

Tag.—This paper will no longer give the meaning of R. S. V. P. See edition of June 1, 1877, last page.

Hutchinson is now, by the governor's decree, a first-class city. This does not include the restaurants, however.

Why does Topeka need a plant to burn garbage? There are no "left overs" in Topeka. You can take this two ways.

Etiquette.—No, Clarence; it is positively rude to use a nutcracker in eating grapes. Egg-shells should never be thrown on the floor.

The correspondents in Pratt are surprised because five girls ran away from that town last Monday. Conceived lot of people out there.

Someone's always growling. Town folk growled because butter and eggs were high; butter fell to 25 cents and eggs to 13 and now the farmers growl.

After arguing his own case at Kirksville, a few days ago, an attorney was adjudged insane. The fact that he didn't ask for a continuance doubtless had its effect upon the court.

The Rockefellers are to add another story to their farm house in the Pocantico Hills. At present it is a miserable hut of only six stories and sixty rooms. Poor John, poor John.

A woman in Kansas City asks the New York Central to pay \$1595.58 for a lost trunk and its contents. With only twenty-two columns for news, *The Star* could not print a list of the contents.

Mr. Booth, who gave one dinky, little thousand dollars to the playgrounds of Manhattan, last fall, must have swelled immensely when he saw it referred to, a few days ago, as ten thousand.

"There is something upon which I should like your opinion," writes Ruth Cameron, the mysterious. "I have got into the disgraceful habit of telling lies." It's all right, Ruth; no one reads them.

A fine, hearty slap it was that Mgr. Falconio, the papal delegate, handed to Denver. Never had heard of it! Did they ask him about Iola and Emporia and Uncle Walt and Judge Gristlebone?

A Certain Poor Man objects because THE KANSAS INDUSTRIALIST referred to Senator Bristow as an editor. When he thinks of some editors the Senator, also, probably would deny the classification.

"We are to be married; isn't that proof that I love her?" exclaims Emilio De Gogorza, the barytone, speaking of Emma Eames. Well that depends. Hasn't Miss Eames saluted away something during all these years?

"In Need of Help," writes *The Kansas City Star* complaining against the "Callerpest." At first glance nine-tenths of you would sympathize with the complainant; and then you reflect. What's the use of shutting out the sunshine when you have a lot of worries? Why not welcome a few callers.

John Lane, of Washington, Kansas, at "the ripe old age of 86" avers that in his boyhood he saw George Washington's face. Did he ever see the hatchet or the cherry tree; what about George standing in the stern of the boat while crossing the Delaware, and has John ever visited the *Topeka Capital's* new home?

LOCAL NOTES.

Leslie Lair, of Clay Center, has quit college and will engage in the drug business in Manhattan.

George Frank, a freshman in the college, died Monday night at his home at 1631 Poyntz Avenue.

Frank Sherrill has gone to his home in Kansas City on account of illness. He will not return to school this term.

Miss Charlaine Furley, Miss Annette Leonard and Miss Estella Boot are in Topeka to-day. They went to see the performance of Ben Hur to-night.

A. A. Potter, B. S. Orr, W. W. Carlson and Floyd Wilson returned from Marion Saturday, where they had been making a test of an oil engine system.

P. E. Crabtree, Miss Frances Brown, George S. Hine, and H. B. Walker, of the extension department, have returned from institute work in various parts of the state.

Nelson A. Crawford, assistant in the English department, read a paper before the English Club Thursday night. His subject was: Symbolism in the Arthurian Legend.

A. M. Ten Eyck, superintendent of the Fort Hays branch experiment station, has gone to Hays to take up his work there. Prof. Ten Eyck has been teaching farm management in the farmers' short course this winter.

G. E. Thompson and Walter Osborne, seniors, will leave college at the end of the winter term. They will go to the government agricultural experiment station at Akron, Colorado. Their work will be directed by H. N. Vinall, '03.

James W. Seearson, associate professor of English, went to Chanute, Kansas, Thursday. He spoke, yesterday, before the Southeastern Kansas Teachers' Association, in place of President Waters, who was unable to attend. "The Mission of the Rural School" was his subject. He will be at Sedan to-day to attend the meeting of the Chautauqua County Teachers' Association.

ALUMNI NOTES.

Chester W. Grizzell, '09, is practicing veterinary medicine at Sterling, Kansas.

C. S. Conner, '09, is farming and practicing veterinary medicine at Mitchell, Kansas.

Grace Berry, '10, is teaching domestic science in the Reno county high school at Nickerson, Kansas.

Edison Frank Kubin, '09, assistant in the veterinary department, and Miss Emma Lee, '10, of Culver, Kansas, were married February 22.

Mrs. Winifred (Brown) Burtis visited Mrs. Hattie Gale Sanders, '89, in Manhattan last week. W. J. Burtis, '87, was here Saturday of last week.

Harry Forest, '00, recently superintended the installing of the electric light plant at Sylvia, Kansas. Mr. Forest is employed by the St. Marys Engine Company.

Clyde McKee, '10, and Miss Clara Schoe, '10, were married, February 18, at the United Presbyterian Church. They left for Akron, Colorado, where Mr. McKee is employed by the government.

A. W. Barnard, '05, is now an instructor in manual training at the Montana State Reform School at Missoula. He writes that the work of his department took first place at the recent state fair.

Dr. Arnold Emch, M. S. '94, writes from the University of Illinois that he has assumed his duties there as professor of higher mathematics and is pleased with his work. Dr. Emch went to Switzerland a few years ago from the University of Colorado to take a professorship at the University of Basel, Switzerland. Later the University of Illinois offered him the position he now holds.

Frivolities and fashions we can do without; but the tools of our trade we must have—be it farmer, laborer, mechanic, or cook.—*The Farm Journal*.

A WEEK'S COLLEGE WORK.

Here's a List Showing How the People Are Helped Every Day.

A great book will be written some day telling how the agricultural college of Kansas "took the message to Garcia," otherwise the people. When this book is written it should contain this chapter, "Public Service," and this list showing just what the college lecturers and demonstrators did—away from Manhattan—the week of February 27-March 4:

Talking this week: George S. Hine, farmers' institutes, Woodbine, Hope, Lincolnville, and Burdett.

H. B. Walker, inspecting drainage projects, Wamego, Sabetha, and Valley Falls.

G. C. Wheeler, institutes, Lebanon, Long Island, and other places.

C. V. Holsinger, orchard pruning demonstrations, Seneca, Centralia, Atchison, Leavenworth, and Duvant.

W. S. Gearhart, road and bridge building meetings, Wilson March 3 and Ellsworth March 4.

J. W. Seearson, associate professor of English; Miss Frances Brown, J. H. Miller, and E. L. Holton, professor of rural education, spoke in Chanute, Hutchinson, Salina, Topeka, and other places, late in the week, to the several organizations of teachers. Their subject was "Industrial Education."

Meetings will be held next week for work in cooking schools, corn and stock judging schools, orchard inspection and drainage. These gatherings will be in Norton, Morrill, and Southern and North Central Kansas.

A. R. Losh, of the extension department, is supervising the building of a bridge across the Kaw near St. Marys.

THE Y. M. C. A. WINS.

A Total of \$9,703 Has Been Subscribed—Business Men Help.

The Y. M. C. A. of Manhattan and the college take off their metaphorical hats to the business men of the town. These business men gave the association its first good boost when it began its building, and they came to the front this week and boosted it out of debt. The association has the \$8,500 upon which it based the design for its campaign clock, and a lot more besides. The whole fund amounts to \$9,704, as good as gold and easier to get.

Here is a list corrected by Superintendent Heald showing exactly the team standing when the campaign closed:

Business Men, Manhattan.....	\$5 020 35
Outside Manhattan.....	2 000 00
Fa-uity.....	370 00
Team No. 1.....	267 50
Team No. 2.....	126 25
Team No. 3.....	591 50
Team No. 4.....	368 50
Team No. 5.....	137 00
Team No. 6.....	597 10
Team No. 7.....	216 50
Total.....	\$9 703 70

GOOD-BYE "TOMMY."

Atsushi Miyawaki, Dairy Assistant, Has Gone Home to Japan.

Atsushi Miyawaki, connected for several years with the dairy department, left this week for Sapporo, Japan, where he will teach dairying and agriculture at the University of Hakkaido. Mr. Miyawaki is to write a series of articles for *The Kansas City Star*, comparing the work of the Japanese agricultural school with the work of the Kansas State Agricultural College.

Mr. Miyawaki entered the Kansas State Agricultural College in the spring term of 1906, with a number of advanced credits. He was graduated with the degree of B. S. in agriculture in 1907. Since then he has spent one summer at Cornell University and has taken special work in dairying, bacteriology, and chemistry at the Kansas State Agricultural College, where he was granted his M. S. degree in 1909.

He has been assistant in dairying for two years.

I thank God that I was born and reared on a farm. It has given me knowledge of a trade that will always give me paying work, no matter how long I live; for there will be people to grow food for as long as the world stands. And some people want to be hard-worked, ill-paid, city clerks! Faugh!—*The Farm Journal*.

THE ROMANCE OF A FARM

HOW ONE OF THE STUDENTS VIEWS A RATHER PROSAIC SUBJECT.

Even Admitting the Unpleasantness of Getting Up at 4 O'clock, This Writer Finds Pleasure in Contemplating Agriculture.

The moon, just lifting its face over the snow-capped peak in the distance, was blood-red and large. The castle near the lake stood grim and silent, while upon the edge of that dismal tarn a lonely figure passed. Why was it that at every moan from the wind-whipped trees the wanderer snatched at his night-hued cloak and muffled his face in its sombre folds?

Reads like the first chapter of "Dick, the Daredevil Detective," or an act from one of Owen Davis' melodramas, doesn't it? And still it is only the way a town boy started his story when assigned to write of the "Romance of Agriculture." Read what he says of this view-point and see if you don't feel more contented the next time you do the chores:

UP AT 4 P. M.

There is more real romance to everyday agriculture than to all the melo-

go to the city? Some day they will begin to understand that the romance of the farm has a hold too firm to break; that it is the only real romance, after all.

PALL-MALL AND GOLF.

Showing How the Game of To-day Had Its Origin in Another Land.

At first thought, there does not seem to be very much connection between one of the busiest streets of London and the game of golf; but the connection exists just the same.

In the olden days Englishmen were very fond of a game which they called pall-mall (pronounced pell-méll). Nowadays we would call it ball-mallet. The game was played in a court, or alley, having an iron ring suspended at each end. A player stood at each end of the court and with a mallet (mall) attempted to drive a boxwood ball (pall) through the iron ring at the opposite end. The player lofting the ball through the ring with the least number of strokes was the winner of the game.

Some introduced a variation by playing to a hole in the ground instead of to a ring. In time, a more convenient form of mallet came into use; a lighter ball was used; and the

HELP IN AN ACCIDENT.

DO YOU KNOW WHAT TO DO IN CASE OF DROWNING?

You Should Understand Some Common Medical "First Aids"—Have a Medicine Case—Wash a Wound and Apply a Bandage.

What is the first thing to do with a drowning person? Not one out of ten persons would know, and that one probably would not have the presence of mind to do it. Did you ever think what a serious thing it is not to know what to do in cases of bad accidents?

To the farmers, especially, it is important to know these things, for the first thought one has in such cases is to summon a doctor. But when the doctor is four or five miles away, the patient would have passed the most critical point by the time the help arrived.

It is not always necessary to call in a doctor if the family members possess the proper medical knowledge. They can use the money spent for the physician in buying the common medicines, and in knowing how and when to use them.

All these things are taught the girls in the domestic science department of the Kansas State Agricultural College. When they go home they will know how to do things and do them properly and without loss of time.

FAMILY DOCTOR BOOK.

If medical books are not available, a plain "family doctor book" will suffice. A good place to keep the medicine is in a chest or on a shelf, away from other bottles. Every bottle should be carefully marked as to what it contains, so no mistakes will be made. Corks with unusual shaped tops should be used for bottles containing poisons. It is a good idea to put a pin in the cork.

Besides medicines, bandages are necessary for wounds, cuts, and broken bones. The bandages may be made from muslin, where firmness is desired, or a thin gauze for scalds and cuts.

A good remedy for a scald or burn, and easy to apply, is in tightly wrapping the affected part with a clean, soft, white linen or cotton which has been dipped in a solution made by dissolving one tablespoon of baking-soda in a pint of boiling water. Treat with this for a few days; then apply boric acid solution, which is prepared by dissolving one tablespoon of the boric acid in one pint boiling water; cool, and strain into a sterilized bottle and cork tightly.

KEEP IT CLEAN.

When a cut is not too severe, a remedy that can be applied at home is, first wash out wound well with a five per cent solution of bi-chloride of mercury, and bind with a clean, soft bandage. A hemorrhage may be checked by raising the affected part a little and tying a strong bandage very tightly above the wound.

In all emergencies one of the chief requisites is coolness. If you become excited all your knowledge is useless. When a doctor is necessary, telephone or send him a written statement of the case, so that he may bring proper materials to treat the patient.

CORN-MEAL FOR THE HAIR.

Moisture Deadens the Texture, but it Can Easily be Revived.

From *The New Fashion Chronicle*.

Since nearly every woman has learned that moisture deadens and dulls the hair, there has been a wonderful increase in the demand for dry shampoo powders.

Common corn-meal possesses rare qualities for cleaning the scalp and hair. No better shampoo powder can be found than a mixture of a half-pound of corn-meal with four ounces of amotone. This is a splendid recipe, for it brushes out very easily.

Sprinkle a tablespoonful of this mixture on the head, then brush out, and you have a perfect shampoo. The powder takes with it every particle of dust, dandruff, and excessive oil, leaving the scalp refreshed and invigorated and the hair light, fluffy and beautifully lustrous.

ATTAINMENT!

There is another bit of romance that the younger generation will seldom know. The bookkeeper in the city feels it, in a measure, when he pays off the final installment upon his home. It is the romance of Attainment, found in finally lifting the mortgage on the farm.

"All this land is mine, at last," you farmers say, some day. "Now, I have something to leave for the children. They will never know the burden of a heavy debt." No; but, also, they will never know the romance of Final Attainment.

And these children wonder why you and mother stay on the farm. You've made your stake, they say; why not

Creamed Potatoes

Egg Salad

Baking-Powder Biscuit

Tea

Prune Whip

Money in Beef? Sure.

The *Farm Press* insists that "there is still money in beef." But who doubts it? Every man who is compelled to dig half his week's wages out of his pocket to buy a stewing piece knows it. "There is still money in beef." To be sure, but it is necessary to kill the beef to get it, and that is where the farmer is left out. He sells on the hoof with "the money still in the beef."—*The Farm Journal*.

SMUT A COSTLY ENEMY.

FROM 6 TO 10 PER CENT OF THE OAT CROP RUINED BY IT.

The Botanical Department Describes a Method of Treatment Whereby the Fungus Growth May Be Eradicated—Here is the Formula.

From 6 to 10 per cent of the ordinary oat crop of the country is lost through smut. The average loss in Kansas oat fields has been found to be something over 6 per cent. The oat crop in Kansas in 1910 was 53,993,474 bushels, valued at \$18,441,607. This means a probable loss of at least \$1,100,000 from oat smut alone.

Smuts are species of parasitic plants called "fungi." There are more than 260 species, most of them affecting wild plants. All of the grains are attacked by one or more species of smut. In the case of all smuts, the black powder called the "smut" consists of an immense number of small, round, blackish bodies called "spores." These germinate like seeds, and send out germ tubes that attack the plants. In the case of oats, infection can take place only while the sheath of the young seedling is still over the shoot.

Spores of oat smut probably are always winter-killed in the field. Consequently, infection always comes from seed oats having smut in or on the seed. After getting into the seedling oat plant, the germ-tube grows up inside the stalk and feeds on the plant's juices. It is not then visible, but it stunts the growth of the oat plant. When the head comes out, the fungus grows into the grain and produces spores there, destroying the kernels. These spores shake or blow out of the smutted head, leaving only the empty chaff behind.

HOW TO TREAT OATS.

Make a solution of one pound (pint) of commercial formaldehyde with 50 gallons of water, allowing one gallon of the mixture to every bushel of the seed to be treated. Spread the seed oats out thinly on a clean barn or granary floor and sprinkle with the formaldehyde mixture, using either an ordinary watering pot or a spray pump. Shovel the sprinkled grain over thoroughly to insure perfect wetting.

Seed wheat may be treated in the same way for stinking smut, but the treatment must be more thorough in the case of oats, since the oat hulls must be wet through by the formaldehyde if any good is to result. After treatment, the oats should be shoveled into a pile and covered with tarpaulin, canvas, burlap sacks, or any covering sufficiently heavy to keep the escaping fumes of formaldehyde gas as much within the pile of grain as possible. The oats are left for 12 hours, or over night, and may then be dried by shoveling over repeatedly in a thin layer, or by mixing with lime that has been thoroughly air-slacked, the grain being afterward run through a fanning mill to drive off the lime dust. If planted before thoroughly dry, allowance should be made for the swelling of the grain by planting more seed to the acre.

BE CAREFUL OF IT.

The discovery was made in July, 1907, at the Kansas State Agricultural College, that the grain smut of sorghum and Kafir-corn could be prevented absolutely by soaking the seed for two hours in a solution of one quart of formaldehyde to 50 gallons of water. This will not injure the vitality of the seed in the least. This treatment, recommended by the botanical department of the college, has been repeatedly tested and found perfectly effective. The reason for using a double strength solution in the case of the grain smut of sorghum and Kafir-corn is because the sorghum smut is enclosed entirely within the hard seed coat of the grain, which, although unaltered in external appearance, is filled with the black smut dust (the spores or reproducing bodies of the smut parasite). The smut spores of oats, on the other hand, become scattered from the smutted heads in the field and are caught in the chaff

of unsmutted heads. In threshing, also, the smut is mixed with and rubbed over the grain.

Caution: Do not spread seed to be sprinkled upon a floor upon which smutted grain has lain. After treatment, if the grain has to be stored, see to it that it is stored in a clean or disinfected place.

Keep the formaldehyde away from children. It is not explosive or inflammable, and is perfectly safe for adults to handle. The fumes of the gas which escape from the liquid solution are extremely irritating to the eyes and throat, and the stronger solutions are corrosive to the skin. Internally, formaldehyde is poisonous.

PRICES HERE AND THERE.

A New York Woman Compares Menus With Those in the Kansas Industrialist.

New York, February 18.
To THE KANSAS INDUSTRIALIST:
I consider the estimate of \$8.54 a week for four persons in a western town too high, if one is seeking to economize. The difference in prices here and in Kansas may be offset by the larger appetites of those living in farming communities, but please note that my schedule is for five persons—not four. I have gone carefully over every item and bill during the four years of housekeeping here.—*Palmyde C. Mitchell.*

Here are menus for meals averaging \$1.10 a day for five persons, based on New York winter prices:

Article	N. Y. Price	Manhattan
Milk.....	9 cts. a qt.....	7 to 8 cts.
Eggs.....	35 to 55 cts.....	16 cts.
Butter.....	35 to 50 cts.....	28 to 30 cts.
Vegetables.....	15 cts. a qt.....	Few here.
Apples.....	15 to 20 cts. a pk.	30 to 40 cts.
Meats.....	16 to 28 cts. a lb.	10 to 30 cts.

Do your marketing in the morning; plan every item of expenditure, and your three meals, before you give your orders. Don't buy what is not needed just because it happens to be a bargain. Can and preserve, in season. When prices soar high avail yourself of the dried fruit and legumes, using them judiciously, of course. Don't buy steaks and chops, as a rule; buy cheaper cuts and cook them slowly in a fireless cooker. Keep meat scraps for combination dishes for supper or luncheon. Don't use them for breakfast. Use up every single scrap—if fresh.

MENUS.

BREAKFASTS	
Baked Apples	
Fireless Cooker Oatmeal	Buttered Toast
Postum	
Rice Boiled in Milk	Baked Bananas
Bread and Butter and Jelly	
Café-au-lait	
Balls of Potato and Sausage Meat	Bread and Butter
Milk	Stewed Dried Apples or Prunes

LUNCHEONS AND SUPPERS

Lentils and Frankfurters	Baked Potatoes
Bread and Butter	Sliced Oranges
Milk	
Swedish Pancake with Bacon	
Creamed (Dried) Lima Beans	
Apple Sauce	Bread and Butter
Tea or Milk	
Liver	Baked Potatoes
Cream Cabbage	Jelly and Crackers
Cocoa	

Sandwiches (Left-overs of Pot-roast)	
Baked Spaghetti with Cheese	
Caramel Custard (or Plain Cake)	
Hot Chocolate	
DINNERS	

Salmon and Sliced Potatoes "au gratin"	
White Sauce	
Salad (Celery and Apples Diced and on Lettuce)	
Baking-powder Biscuits	Lemon Jelly

Pot-roast (Beef)	Mashed Potatoes
Diced Carrots or Boiled Onions	
Whole Stewed Apples	
Purée of yellow Split Peas	Fried Croûtons

Cabbage Leaves Stuffed with Rice and Chopped Meat en Casserole	
Brown Kidney Beans	
Pearl Tapioca Pudding	

Meat-loaf	Bread and Butter
Baked Potatoes "on the half-shell"	
Swedish Oatmeal Soup	

Another thing that causes weak chicks is feeding stimulants to increase the egg yield.

KEEP SHEEP—GET RICH

A HUNDRED GAVE ONE MAN A PROFIT OF \$2,000 IN A SEASON.

An Alfalfa Field of Four or Five Acres Will Pasture 100 Sheep for Thirty Days. Feed Roughage in November and December.

Are you working harder than is necessary to earn your money? One of the easiest ways of making money on the farm is by rearing sheep.

There is more money in sheep than in dairying. A man in Southwest Kansas made a profit of \$2,000 a year from a flock of 100 ewes. This is more than the dairyman makes from twenty cows.

It doesn't take so much work to care for sheep as for cows, and the work is pleasanter.

Sheep increase the value of a farm. They increase the fertility of the soil. Their manure is rich in plant-foods. Sheep will eat many kinds of wild grasses. They thrive in dry, mild climates.

In choosing a breed of sheep, it matters little which is chosen so long as it is a good wool- and mutton-producing quality. Although a large sheep may sell for more than a small one, it also costs more to rear it. In some places the mutton sheep are the more profitable, while in other places it pays better to produce wool.

AS TO THE EWES.

Whatever breed is chosen, a purebred ram should be used. Although good ewes should be kept, it is not necessary that they be pure bred.

Ewes should not be used for breeding before a year and a half old. Breeding younger ewes leads to a weakening of the flock. Men of experience hold that more money can be made by breeding older ewes, as stronger lambs are more profitable. Ewes older than eight years are generally not profitable.

The profit to be made on lambs depends much upon the care of the ewes before lambing. The worst months are November and December. The change from grass to roughage is made then. The fall rains are coming, too, making the ground slippery and chilling the ewes. Don't delay feeding them at this time. The time the ewe should have the best feed is when she is nursing. At this time it is often a good plan to feed her grain even if she has a very good pasture to graze upon. Lose no time in feeding the lambs. They should be fed when still quite young. The best way to feed them is to have a small pen in which there is a low gate. This can be made by removing the lower board of the pen. Here they can be fed undisturbed by the ewes.

One of the secrets of success in sheep rearing is change in pasture. An early pasture can be had by sowing a small patch of rye. Later the sheep can be pastured on native prairie grasses. One of the best pastures is a small alfalfa field. A field of four or five acres will be large enough to run a flock of 100 sheep for about thirty days and furnish some hay besides. A man who practices pasturing alfalfa is quoted as saying that an acre of irrigated alfalfa will pasture twenty sheep for six months. Sheep often bloat on young alfalfa or alfalfa heavily charged with moisture.

Another cheap pasture is the stubble-field. Oats and barley stubbles are good; but wheat stubbles are dangerous, especially if much grain is left on the field.

Sheep must not be exposed to bad weather, as they are rather delicate. The effect of an exposure to a hard rain can often be noticed upon the flock long afterward. Sheep should be fed regularly. They become worried and uneasy if neglected.

CANCELS INSTITUTE DATES.

Extension Department is Hampered Because of General Bad Weather.

For the first time in five years the extension department of this college has been compelled to cancel a circuit of institute dates on account of bad weather. The circuit cancelled was in the southeastern part of the state and off the main lines of railroads.

A SUMMER SCHOOL at the Agricultural College For the Teachers

Spring Term begins March 28 and ends June 14.
Summer Term begins June 15 and ends July 27.

Agriculture, Manual Training, and Home Economics

About one-half of the country school-teachers of Kansas will close their terms of school before the opening of the spring term of the agricultural college, March 28. The college, therefore, suggests to these teachers the advisability of the investment of money and time for both the spring and summer terms, giving principal attention to the vocational subjects.

The Courses Offered:

Spring Term:

Home Economics: Domestic Science; Sewing; Dress-making; Home Decoration.

Drawing: Free-hand; Geometrical; Object; Perspective; Water-color and Design.

Manual Training: Two courses in Woodwork; two courses in Blacksmithing; Mechanical Drawing.

Agriculture: Elementary Agriculture; Live Stock; Farm Crops; Stock Judging; Grain Judging; Poultry; Plant Propagation; Small Fruits; Market Gardening; Landscape Gardening.

Education: Methods of Study; Methods of Teaching; School Management; Industrial Education.

The Spring Farm Work

Teachers who enter for the spring term will have an opportunity to observe much of the experimental work conducted at the agricultural college.

The summer term does not differ materially from the courses preceding it. The course in elementary agriculture will be offered during the summer session primarily for teachers who expect to teach this subject in country schools or village schools, and especial attention will be given to methods of teaching elementary agriculture in the rural school or in the grades in the village, with suggestions for laboratory work. Those who have time to take two or more of the other subjects named above will not need to take this course in elementary agriculture.

Expenses

The only fee charged by the college will be the regular incidental fee of \$3.00, which the state law requires to be charged of all students who are citizens of Kansas. Nonresident students will be charged a fee of \$20.00 for the first term and \$10.00 for each term thereafter. Board and room may be had for from \$4.00 to \$5.00 per week.

For further information address

H. J. Waters, President

Manhattan, Kansas

IF YOU OWN AN ENGINE.

ELECTRIC LIGHT ON THE FARM WILL NOT BE AT ALL EXPENSIVE.

Here's Another Little Story from Prof. Eyer Telling Something of the Cost and How to Set Up the Outfit Complete.

Suppose a farmer has a one- to five-horsepower gasoline engine used for various power work on the farm. If to this engine is belted a \$90 or \$100 dynamo, and a 16-cell storage battery is installed with a switchboard, the electric lighting outfit is ready to set up. The 16-cell storage battery will cost approximately \$250, the switchboard, \$130.

This plant will run 30 16-candle-power, 32-volt, tungsten lamps, costing 80 cents apiece, for 2½ hours on one charge of the battery. It is assumed that the average number of lamps a night will not exceed eight or ten, often only three or four, for from two to four hours. In this case, the battery would run for three nights or more on a

THE KANSAS INDUSTRIALIST

Volume 37

Kansas State Agricultural College, Manhattan, Saturday, March 11, 1911

Number 23

SETTLE COLLEGE FUND.

APPROPRIATIONS FOR AGRICULTURAL COLLEGE DECIDED THURSDAY.

Increase Given a Number of Departments Will Aid the Work Materially—Legislature Passed Bills Giving Money for Special Purposes.

The appropriation bill for the Kansas State Agricultural College was finally passed by the state legislature Thursday of this week. The slight disagreement between the House and Senate was adjusted in conference. Following is the budget for the next two years:

	1911-'12	1912-'13
Maintenance.....	\$215,000	\$235,000
For the purchase of books.....	3,500	3,500
Experiment station.....	22,500	22,500
Extension department and state farmers' institute.....	35,000	40,000
For increased equipment and better work in the following departments:		
Domestic science.....	2,000	2,000
Animal husbandry.....	5,000	5,000
Dairy husbandry.....	5,000	5,000
Agronomy.....	5,000	5,000
Poultry.....	2,000	2,000
Horticulture.....	2,000	2,000
Veterinary.....	1,500	1,500
Printing.....	1,000	1,000
Engineering laboratory.....	5,000	5,000
Heat and power equipment.....	7,500	7,500
For new wells and pumps.....	3,000	
Fire protection and escapes.....	4,000	4,000
Poultry house.....	2,000	
Repair and improvement of buildings and grounds.....	10,000	10,000
Milling industry.....	2,000	2,000
Forestry.....	2,000	2,000
Dodge City forest station.....	3,000	2,200
Dairy commissioner.....	7,500	7,500
Hays branch experiment station.....	27,500	18,800
Garden City station.....	5,000	2,500
Contingent fund for President.....	500	500
For purchase of coal, in case supply from the Penitentiary is inadequate, and for transportation of coal.....	12,000	12,000
Heat tunnels.....	3,000	3,000
Wing of agricultural building, to accommodate departments of animal husbandry, plant production, grain products, and farm mechanics, and for the equipment of same (including a detached laboratory for the cutting and curing of meats).....	50,000	75,000
To complete the armory and gymnasium, including the literary society halls and swimming pools, and for equipment.....	22,000	

SPECIAL APPROPRIATIONS.

The legislature appropriated for special purposes, by separate bills:

Per diem and traveling expenses, board of regents, \$1,750 a year for two years.

Emergency appropriation for hog-cholera serum production, \$3,000.

Experiments in irrigation in western part of state, co-operating with United States government, \$2,000 each year.

For soil surveys, in co-operation with United States government, \$5,000 each year.

For experiments in production of improved seed—wheat, corn, and other agricultural crops, \$7,500 each year.

The \$7,500 revolving fund for live-stock experiments and demonstrations appropriated by the last legislature was reappropriated.

The law relating to the inspection of feeding stuffs was entirely revised and the fees increased. The income to the college from this source will be materially larger than in former years.

The bill establishing a department of highway engineering at the college and providing for its support a portion of the proceeds of the tax on automobiles, has passed the Senate and at the time of going to press was pending in the House with a fair prospect of its passing.

The appropriation for the completion of the armory and gymnasium is immediately available, and it is expected that all work will be completed on this building by June 1. From this appropriation the equipment required for the armory and gymnasium will be purchased.

HOW TO COOK THE HAM.

Many Requests for the Recipe Make the Reprinting Necessary.

So many requests have been received for the recipe used by President Waters' man, Perry, in cooking the famous Waters ham, that the article printed several weeks ago is here reproduced:

"I have interviewed Perry on the cooking of those old hams," said President Waters a few days ago. "This is his general plan:

"He first thoroughly washes the ham with a scrubbing brush to get all

the mould off and have it thoroughly clean. He then soaks it in warm water for about twelve hours, keeping the ham submerged. Then he puts it into a dishpan in which he has placed a plate or pie pan to keep the ham from coming into contact with the bottom of the pan, covering it with another dishpan. He boils it for about three hours for a small or medium ham, or four hours for a large one. After taking it off Perry removes the skin, rubs a handful of New Orleans or brown sugar over it, covers it lightly with mixed spices, puts it into a hot oven and bakes it for about half an hour. It is then cooled and served cold."

Perry may not know much about biological influences or the processes of nutrition; he might find it hard to distinguish between carbohydrates and proteins; but Perry can cook ham. Perry, of course you remember, is President Waters' man Friday. To see Perry affectionately regard the Waters collection of old hams is to see something you will never forget. To eat some of his sausage is to record one more reason for wishing to live.

MAKING THE ROYAL PURPLE.

Three Hundred Pages of College Life in the Annual Senior Book.

The Royal Purple, the annual publication of the senior class of the Kansas State Agricultural College, is now in the making. It will contain 300 pages of college life—in the class rooms, on the campus, at the boarding clubs, on the athletic field, the Kansas Aggies in their literary societies, their class meetings, their fraternities. It will show college professors at work and at play. Throughout the book will be the real college atmosphere.

One hundred and ninety-five seniors, the largest class in the history of the college, are backing the committee in its efforts to make this the best annual ever published at the agricultural college.

The book will be a series of pictures of college life, word pictures some of them, others snap shots, and some cartoons by college students and a Kansas City artist. Over fifty pages will be devoted to this department. In the book will be the picture of "The college family" taken recently in front of Anderson Hall.

The arrangement of the senior pictures and write-ups will be different from that used in past years. The cloth-bound volumes will sell for \$1.75 and the ones done in leather for \$2.25. No orders will be taken for books after March 15. U. A. Domsch is chairman of the Royal Purple committee.

Remember this Law, Mr. Farmer.

The law provides for the inspection, by the director of the agricultural experiment station of the Kansas State Agricultural College, of all commercial fertilizers offered for sale, with suitable penalties for the violation of its provisions. After examination and registration every package of commercial fertilizer sold, offered for sale or in the possession of any one in Kansas must bear a label showing the name and address of the manufacturers; the brand of the fertilizer; the number of net pounds in a package, and the chemical composition guaranteed by the manufacturer. Nothing else shall be said on such label.

Change the Plantings.

It is a mistake to plant the same types of vegetables in the same spot year after year; keep them moving to prevent insects and diseases from getting a foothold. And it is a mistake to forget that a garden needs plant-food in order to nourish vegetables properly. Stable manure and a sprinkle of bone-meal will do nicely.—*The Farm Journal*.

TEN TO ONE ON ONIONS.

MORE PROFIT ON ONE ACRE OF ONIONS THAN ON TEN OF CORN.

Onions Require a Moist, Rich, Loose Soil.
Two Methods of Growing are from Sets and from Seeds. The Detail of Planting.

More profit can be made on one acre of onions than on ten acres of corn.

Onions have been cultivated successfully for a long time. They require a moist, rich, loose soil.

Onions are propagated in two ways: from (1) sets and from (2) seeds. The first method is the one generally employed by market gardeners in growing early bunching onions. In planting in this way the crop matures before the dry season begins. You will not have to be so particular with the soil for raising onions from sets as from seeds. The sets are planted in the spring in rows a foot apart and three inches distant in the row.

HOW TO SOW MAIN CROP.

The main crop of onions is usually grown from seed sown in the open field in rows 12 to 14 inches distant and thinned to 3 inches in the row. If possible, have a windbreak, and see that the ground is well cleared before planting the seed. Sow the seed about the middle of February in the hotbed—garden March 15 to April 1, or as soon as ground can be prepared.

In raising onions for commercial purposes a large bulb is desirable. This is best secured by transplanting onions in the spring that were sown in the fall. In transplanting onions, place them so the small bulbs are on the surface of the ground, and surrounded with decayed manure. This will give you a large bulb. Take these bulbs up when the leaves decay. After drying they may be kept a long time.

While this is a good plan, the latest method in the United States is to sow the seed under glass in the early spring and transfer to the field as soon as the weather will permit. This will give a more even stand, the yields will be higher, the bulbs will grade more uniformly, and the extra cost of transplanting them will not be as much as the cost of thinning and weeding when the seed is sown in place. Thorough cultivation is essential in either case.

AMERICAN VARIETIES BEAT.

American varieties keep longer and are better adapted to most parts of the United States, while foreign varieties are better flavored and bring a higher price in the market. These foreign varieties are grown in California and the Southern States.

E. R. Beebe, of Salina, Kansas, has raised onions successfully and realized as much as \$750 an acre from them. He believes that raising onions from sets is the best way and the best-paying proposition. Mr. Beebe thinks profits can be made in the handling of seeds about as well as in the bulbs.

One good thing to remember in the raising of onions is that the gardener does not necessarily have to go to a warm climate. Kansas climate and soil are good and will grow big onions if grown from sets. Grow your onions and market them right here in Kansas.

FARM BOOKKEEPING.

The Result of a Year's Work Shown by the Pleasanton Observer.

A. J. C. Lowe says he has inaugurated the plan of keeping a carefully itemized account of all his transactions on the farm, and by doing so is able to tell at the end of the year just what he has realized from his work and what departments of the farm are the most profitable and what are not

profitable. Here is a summary of his ledger for the last year:

Mr. Lowe has a farm of 135 acres, west of town, and himself and wife and son do the work. Their net earnings for the year were \$1,449, divided as follows: Profits on 130 hens, \$205; on three cows, sale of calves, and butter fat, \$105; profits on 15 steers, \$375; 61 pigs sold from three sows, \$630; profits from horses, \$250. Total, \$1565; and from this deduct \$116 paid for feed, leaving a net profit of \$1449.

This is exclusive of the fruits, vegetables, eggs; and poultry and meat killed and eaten by the family. This is certainly a good showing, and it is a satisfaction to know just where the revenues of the farm come from. The cash book and the ledger on the farm, if properly kept, will be the best investment that could be made.

THE ROBIN'S REAL WORTH.

The Bird is Useful, Especially to Growers of Large Fruits.

What is a robin worth to a fruit-grower? The answer to this question depends upon two things: First, as to whether the person concerned is a grower of large or small fruit; second, the amount of fruit grown. To a gardener or grower of large fruits the robin is a useful bird. Very early in the spring it may be seen at work patrolling garden and field for grubs and other insects. It arrests the destructive work of these pests and gets its board free.

The robin has no consideration for eight-hour laws. It puts in full time, from daylight until dark. Of course it does not go out and get a cutworm, just because a cutworm damages things. It gets the worm because it, the bird, needs it.

The robin eats other destructive members of the caterpillar family. The June bug forms a large part of its menu. While the robin eats a large amount of fruit, nearly one-half of this fruit is wild. What it takes of man's cultivation is comparatively small. The robin comes early in the spring and stays until late in the fall. These things considered, it has a definite worth to the farmers.

Another "Three Weeks" Book.

J. U. Higinbotham, '86, has written another book of travels. When tired of work, Mr. Higinbotham takes his camera and his pencil and sails away. When he returns to America he tells about his journeys in such entertaining books as "Three Weeks in Europe" and "Three Weeks in Belgium and Holland." His new book, "Three Weeks in the British Isles," is an account of his travels in England, Scotland, and Ireland. The book is beautifully illustrated and the style excellent. There are no tiresome statistics, no sentimental effusions over ivy-covered ruins of ancient castles, no grecian recollections of evil deeds in dark dungeons. The book is bright, entertaining, the chronicles of a man with a cheerful viewpoint. It is full of pertinent suggestions, and historical facts and present-day conditions are so skillfully mingled that the reader gets much valuable information in a most enjoyable way.

A laugh goes with nearly every page, for there is an abundance of whimsical, kindly humor, making it most restful and refreshing reading. It is to be hoped Mr. Higinbotham will remain longer than three weeks the next time he visits abroad. Why he clings to this absurd limit is a mystery when he can write so entertainingly.

When it is Safe to be Idle.

A man can never be idle with safety and advantage until he has been so trained by work that he makes his freedom more fruitful than his toil.—H. W. Mabie.

GIVE YOUR BOY A SHARE.

THE FARM HOME, A STUDENT SAYS, MUST BE MORE ATTRACTIVE.

Modern Comforts, Modern Methods, the Spirit of Progress—Lights, Bath, Good Reading and Pleasant Surroundings Some of the Essentials of Life.

The secret of keeping the boy on the farm is to have there the up-to-date spirit that is found in every well-managed business. The farm should have, as far as possible, the things that attract the boy to the city: good lights, baths, good reading, pleasant surroundings, and social entertainments. The farm should have the special advantages of a country home well developed, so that wherever the boy may go, he will always remember the home-cured ham, fresh eggs, butter, and garden "sass," and long to return.

Farming is much more than a business. The farm is a home, and in improving it the farmer must not always do things just because they will be profitable. Every farm boy is dreaming of his future and is planning it as he follows his plow team day after day. From the time the boy begins to dream of the part he is to play in life, his father should teach him there is more in it than dollars and cents. He must teach his son to see farming as a science or an art.

TALK WON'T DO IT.

To be the most successful the farmer boy must love his work as much as a starving painter loves his unfinished picture. This love for farm life can not be instilled into a boy in a day. It must come from his growing ability to find beauty and perfection in farm animals and farm crops.

The boy is not likely to get these ideas from talk alone. He must have something that he can call his own and he should be his father's partner in business. If he accumulates a little property, he will be proud of it and will not leave it.

Boys have high ideals. They like good horses and good harness. They like good cattle, and are proud if their farm produces the best crop of wheat or corn in the neighborhood. Nothing discourages a boy much more than to find that the team he thought so much of is sold, and it will be his lot to work the old mares that may raise colts but are too blemished to sell. A boy who spends six days of the week in the field will get more pleasure from working a good team than from riding, Sunday, in a motor-car.

NO TIME FOR PLAY.

Long, lonesome days and few holidays have helped more than anything else to make farm work drudgery. In Kansas, where land can be rented easily, many men farm too extensively, and a chance seldom comes for a holiday from early spring until late winter.

Where dairying is a part of the general farm work, milking is too often called a chore, to be done before and after what would be called a day's work in any other business. Make milking a part of the day's work.

A blacksmith shop will help to keep the boys contented on the farm. Almost every boy likes to work in the shop on rainy days.

What Is a Loafer?

What is a loafer? Not a human loafer, but a horse loafer. C. W. McCampbell, assistant in animal husbandry at the Kansas State Agricultural College, put this question to a class in the History of Breeds recently. A loafer is a horse that stands with front feet crossed, just as the human loafer often does on the street corner. Some horses, said Mr. McCampbell, "Fall out of bed," which means that they pull back on their halters. Other terms are often applied by horsemen to animals with such little faults.

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THE "OVERWORKED" FARMER.

This writing has to do with two fallacies: That farmers have more work than any other men in the world, and that farmers are too busy to fix up the yard, front or back. Both these ideas are here and now, "with wan stroke av the pin," as Dooley says, thrown into the heap along with other refuse. For the purposes of this case, the state admits that every farmer has to work and work hard; but in that respect he is in no worse situation than thousands of men who toil, many of them at far more arduous tasks, who still find the time to clean up the yard, to plant a few flowers and vines, to trim the grass and repair the fences and make their abiding places homes and not merely houses. The idea that farmers and their families are the only men and women on earth with burdens to carry is bunc and wholly unworthy of a class upon which the country depends chiefly for its food supply.

The truth is, boiled down for the primer grades, that farmers have heard and read so much about the "yearnings of rural communities," of the necessity of an "uplift," of "improving conditions in the country," that they have gracefully accepted the role assigned them by persons who know precious little about farm management. They have accustomed themselves to being called "over-worked," men who rise at 4 o'clock and tumble into the hay at 9 or 9:30 o'clock too tired to take off their shirts. A majority, probably, has let slip a whole lot of the good and beautiful and comforting things of life, under the mistaken impression that they haven't the time to get them, that the house is a place only for sleeping and eating and fussing, instead of the meeting place of human beings originally endowed by the Creator with the brains to plan and think and conduct themselves exactly as others with wisdom do.

Why shouldn't a farmer have an attractive front yard and a clean one at the rear? In God's open country, far from the grime of commerce, with woods that smell of health, and fields of waving richness, with unfrightened birds to sing about his roof tree and winds that are clean to stir the curtains of his sleeping room; with the whole glorious day before him and peaceful night in view; with no factory whistles to fret his soul, no tardy cars to depend upon; no one to step upon his weary feet; no unwashed army to jostle him wherever he goes—why under the bending blue of heaven should not the farmer turn to and plant flowers at his gate?

How soon would he sicken of the ten hours' labor the city dweller struggles through; the hasty luncheon he dumps into his unwilling inwards; the dreary strap journey to the 25-foot lot about which he must potter, often in the dark, to gain a tenth of the beauties of nature neglected or forgotten by him—the farmer?

Take it from one who has lived through both experiences, when farmers in the West were pioneers and comforts were few: The farmer who gives attention only to his acres and his animals is not overworked because of the work, but because he needs to be led gently but firmly to the barn and

there told a few simple truths, in small words, about system and planning and a man's duty to his family and home. Fix up the yard and the house. Be a citizen, not merely a farmer.

THE JOYS OF MOTORIZING.

If you own a motor-car it is hard to be a real, law-abiding citizen. In fair weather, with a beautiful stretch of clear road, and a cynical cow looking on from the near-by pasture, temptation cannot be resisted. Keep an eye on the speedometer, and when the needle climbs beyond the 20 mark, it's time to blush deeply and to pray for pardon; you have committed an offense against law and order. In passing crossings—no matter where they are—your speed must be less than ten miles an hour.

The driver of animals on the highway may command motorist to stop his car until he and his charges have passed; he may order the engine "killed." Some authorities say he has the right to direct that the machine be taken apart and hidden in the grass until he and the cattle have passed. But this may not be true. If the cattle driver could require this he could go further and demand proof that the machine was paid for and whose money was used—the man's or his wife's or his employer's.

As to equipment, the statutes are more vague. A bell, horn, or other signal is required, and every car must be provided with "good and efficient brakes." One white light is necessary, "visible in the direction towards which the automobile is proceeding," from one hour after sunset to one hour before sunrise.

In section 3, chapter 67, of the laws of 1903 can be found the following additional demands: "The lamp or lamps shall be so placed as to be free from obstruction to light from other parts of said automobile or motor vehicle." No one has ever discovered exactly what this clause means. It may be a literal translation from the Sanskrit.

There was a provision in the statutes providing that should any accident occur, such as a collision or the running over of a man or animal, the driver of the machine shall not proceed until he has reported his name and address to the local authorities. But this act has lately been declared unconstitutional on the ground that no man shall be required to testify against himself.

So, the next time you boast a deaf man to the place where they don't need ear-trumpets, don't bother about explaining matters to the local constable, but be thankful that the Constitution follows the car, and give her as much gas as she'll take. S. A. B.

JOURNALISM 2,000 YEARS AGO.

They were poor reporters in the days of the "Acta Populi Romani Diurna," published 175 years before the birth of Christ. "In a hostelry at the foot of the Hill of Janus," runs one item deciphered upon a tablet, "there was a fight in which the landlord was badly wounded." Not a name given; no reason for the fight; nothing to show whether it was in the dining-room or the lobby; not a mention of the house detective or a policeman; nothing about the clerk's refusing to say what started the trouble, and, finally, nothing to show whether anyone was arrested, whether the wagon was called, or the name of the police surgeon who "treated" the victims. Altogether they were a sleepy lot on the *Diurna*. No self-respecting editor to-day would tolerate such work.

But the tablets that conveyed the day's news to the curious of Rome contained several items that might have been "left standing" to this day to fit into the modern code of morals. "Sicinius punished some butchers today," an item from the police reporter reads—no names mentioned—"on account of their selling meat which had not been inspected. . . . The broker, Ausidius, fled from town to-day, taking money with him belonging to other people. He was caught and had to refund the money."

Then, as now, the complainant was satisfied if only he recovered his money. He cared nothing about his

A Golden Text.

And God said, let the earth bring forth grass, the herb yielding seed and the fruit tree yielding fruit * * * and it was so. —Gen. 1:11.

"duty to society." Butchers, even in that far distant day, perhaps before the Central Branch was finished, were prone to hand the public the soiled package whenever they had the chance.

How different now, O, my Sicinius! Now is the day of the smoking revolver, pearl handled; 32 caliber, on a .44 frame; names of everyone within a block of the rumpus; number of the room; picture of the steak the waiter was carrying when the fight began—the check for \$7.95 he was about to slip the guests at his table; the manager's denial that anyone had fought anyone in his hotel except in a struggle to register; what the clerk said; the bell hop's version of it, and, finally, a red headline above the whole mess in the evening paper. They had no patent inside in the *Diurna*'s time, no boiler plate, no scoops, no scare-heads, no press agents. What a peaceful age and how blessed!

ART IN FARM HOUSES.

One of the next steps in agriculture, says *The Breeders' Gazette*, should be a revision of farm architecture. Only a small percentage of country residences please a cultured eye or afford sanitary comfort to their occupants. Most of them are devoid of any semblance to art. Outwardly plain and severe, they are inconvenient, insanitary and unattractive within. If farm people spent half as much time in their homes as city folk spend in theirs, rural mortality would be appalling. But farm families as a rule are blessed with vigorous health in spite of poorly ventilated houses. Outdoor activities offset in large measure the effects of unhealthful conditions indoors. A much higher degree of health, however, should obtain in the open country.

Many a farmer buys additional land who could better invest his surplus in a new or remodeled home. Usually where men are unsentimental, autocratic heads of houses there is little of beauty or comfort in their homes. Our best farm dwellings have been built at the instigation of women.

Since women spend most of their time in houses they have a right to dictate plans and demand their execution. Farmers' wives are entitled to better homes than the majority of them live in, and their husbands in thousands of cases could well afford to provide them. We would not engender domestic dissension, but we urge farm women to campaign for more attractive, healthful and convenient houses.

New types of farm houses equipped with modern heating and water systems, and expressive of simple architectural beauty, can be constructed at an average expense not in excess of what the bulk of ordinary modern farm houses cost. There is excuse and opportunity for a deal of thinking, studying and planning by those who would build a farmhouse with a quiet, simple individuality and a maximum of practical conveniences that conduce to mental and physical comfort. It is time that our agricultural colleges considered this problem of farm architecture.

THE LATEST FARM UPLIFT.

We have touched only the outer edge of the wonders of electricity, says *The Woman's World*. From the experimental farm of Prof. Silas Wentworth at Los Gatos, California, comes a remarkable story of the influence of the mysterious current in an entirely new and unsuspected direction. For some time it has been suspected that the electric current has a direct effect on growing life. Sir Oliver Lodge, the famous English scientist, has, in fact, greatly increased the growth and yield of strawberries and other fruits by the use of electricity.

But Prof. Wentworth has recently completed a far more important and conclusive experiment. Under his di-

rection a band of 2,000 sheep on his experimental farm was divided into halves. One half was kept in fields which were crossed by the high-tension power wires of the Great Western Power Company, carrying enormous quantities of electric current down from the mountain hydro-electric plants. The other half of the band was kept on pasture remote from any possible electric influence.

At the end of the season it was found that the ewes which fed under the power wires had produced, on the average, two lambs each, while in the rest of the flock the average was only one each. In the same way the records show that the yield of wool from the first half of the flock was actually twenty per cent heavier than from the second.

This year the respective fields on which the two halves of the flock were pastured are to be plowed and sowed to wheat. If electricity, as is expected, greatly increases the yield of wheat, the electric farmer may yet come into fashion and the starvation of the world, predicted by some scientists, be indefinitely postponed.

THE NEXT PICTURE—

And now, good people, the next picture will be the garden: not alone the little area in which you should plant the vegetables that give you a foretaste of summer, but also the spaces for flowers and the window boxes and the porch. March is well upon its way—the month for hotbeds, and the time for labor after work, the hours that somehow pay you best for the cricks and catches in your bending back.

March, in Kansas, is the month of breezes—to reserve a harsher word—but also it is the month when the thoughtful householder will commune with his seed catalogue, if, indeed, he has not already done so; when he should hie him to the wood-shed or the stable and dig out the boxes that bore, last summer, their burdens of beauty, paint them over white, if the house will stand the contrast, fasten the loosened nails, renew the wood soil, or decide where you are to get it; loosen the earth about the porch—unless frost returns ere this is entered in imperishable type—oil the mower and have it sharpened; drag down the trusty garden hose and ask mother what became of the nozzle which, last fall, she gave the baby for a toy.

Happy is he who has such joys of ownership, proud should be the wife who has for a partner a man who knows no hesitation when spring time comes and the robin hops blithely on the lawn.

WHERE THE FARMER LOSES.

What the farmers lose, commercially and socially, on account of bad roads is hard to calculate. The increased cost of hauling and the depreciation of teams and wagons have been computed with great accuracy. But the loss to farmers by reason of the social isolation and deadly monotony of farm life cannot be calculated. The first prerequisite to keeping the girls and boys on the farm is to make country life pleasant and desirable. The first essential step in this direction is the building of good roads.

Every district should look to this work and not wait for state or national aid. The old adage regarding those who help themselves applies to this problem of building good roads as forcibly as it does to all other affairs of society. The unit of success lies with the farmer who uses a drag on the road along his own farm. Co-operation will follow as surely as in the days of old when every householder in Jerusalem swept in front of his own doorstep. O. W.

You Must Know How.

The man who enters his business career with a definite knowledge of at least one task doesn't have to be shaped up. At the same price, he is a better investment, because no time is wasted in adjusting him to his post. Therefore, there is practically no chance at all for young people who can bring nothing more than willingness to their work.—*The Woman's World*.

Speak the Good Word.

It isn't the thinking how grateful we are For the kindness of friends come to bless Our sorrow or loss 'Neath the weight of the cross; It is telling our gratefulness. It isn't the love that they have in their hearts, And neglect or forget to reveal, That brightens the lives Of husbands or wives; It is telling the love they feel.

It isn't the thinking of good to mankind That comes as a cooling drink To the famishing ones Of Earth's daughters and sons; It is telling the good that we think. It isn't the silence of hope unexpressed That heartens and strengthens the weak To triumph through strife For the great things of life; It's the words of good cheer that we speak.

SUNFLOWERS.

Did you ever hear anyone "vouchsafe" anything except in a despatch from Washington?

Again the country has been saved. The magazines are not to be molested in their use of the mails.

Unhappy is he that never had a boyhood, that looks at the world through smoked glasses, that carries a perennial grouch.

William.—It is your own fault if you got in trouble in Kansas City. We told you to consult a policeman, not insult him.

About the funniest thing in current magazine literature is Norman Hapgood's editorial reference to Mr. Post's "bran."

It's a long time since Winnemucca and bows and arrows broke into the papers. By the way, what became of Wounded Knee?

Now does the lazy home owner frown upon the busy body next door who has started his hotbed in readiness for the summer's garden.

Grain men, *The Star* says, see a big crop for 1911. This story should be reprinted next July when the same men will kill the same crop.

In considering Mr. Lorimer's case the senate doubtless remembered the warning seen so often upon delicate packages: "Use no hooks."

While the campaign goes on it is well to be thankful for one thing in connection with tuberculosis: It never breaks into the top line of the heads.

A butcher in Manhattan who advertises—may his tribe increase—announced in *The Mercury*, recently, as a bargain, "Boils, 10 cents." You may think this over in your own way.

One of the certainties of life: Whenever anyone worth noticing is released from the penitentiary "the great, iron gates open outward." That was how Bunker Bigelow got away last week.

"Comments heard in passing by the Capital's reporters," a daily feature of that esteemed paper, indicate that Mr. Capper's reporters have exceptionally good memories or exceptionally long distance hearing powers.

After reading the latest issue of *Collier's Weekly*, containing the history of yellow journalism, one is constrained to believe that Mr. Hearst's threat to sue that paper before the piece was printed was just a trifle premature and distinctly yellow.

Declining an invitation to address the students of industrial journalism, W. C. Palmer of *The Jewell County Republican* says: "The Lord never meant me for a speechmaker, and I ask you, please, not to tinker with His plan. The woods are full of able editors who would gladly arise in the night for the chance to make a speech. Hark ye, to their clarion tones, and have respect for my old bones." The invitation has now been sent to Henry J. Allen.

John U. Higinbotham, of Chicago, an alumnus of the Kansas State Agricultural College, is out with another "Three Weeks" book—this time "In the British Isles." For a man with rare ability to see and describe things attractively, Mr. Higinbotham shows strange stubbornness in clinging to a title that is rampant with suggestion of Glynnardness. Why not "One Month in England," or even six weeks? Surely Mr. Higinbotham doesn't intend to keep up this racing about the world in such unseemly haste.

LOCAL NOTES.

Good-bye to the old athletic park. The contract has just been let for a school building to be erected there.

George R. Towne, manager of the University Publishing Company, was in Manhattan recently visiting college friends.

The horticultural department has been getting out its machinery preparatory for spring spraying in the college orchards.

W. A. McKeever, professor of philosophy, spoke in Abilene last night. The address was a number on the annual lecture course.

R. R. Rees, '85, congressman from the fifth district, spoke in assembly this morning. His subject was, "Canadian Reciprocity."

W. A. McKeever, professor of philosophy, addressed the students of the Michigan Agricultural College at East Lansing, one day last week.

"Psycho-therapy" was the subject of an address to the Methodist Brotherhood of Manhattan last Thursday night by J. W. Searson, associate professor of English.

The Westmoreland high school debating team spent last Saturday at the college. The members came to obtain debating material on the "initiative and referendum."

The Saline County Club was entertained last Saturday night at the home of Miss Enid Reddon, west of the college. Twenty students were present. The evening was spent with cards and music. A two-course luncheon was served.

Leslie A. Fitz, professor of milling industry, made a very interesting talk in student assembly Wednesday. "Some of the Products of Our Grain Fields" was Prof. Fitz's subject. He dealt chiefly with corn and the different ways in which it is treated in the large mills.

E. L. Holton, professor of rural education, spoke at the recent meeting of the Central Kansas Teachers' Association, held at Hutchinson. Largely through the efforts of Prof. Holton, the next meeting of the association will be in Manhattan. Prof. Holton lectured to-day at Winfield.

ALUMNI NOTES.

V. M. Emmert, '01, was married recently at Brogado, Texas. Mr. and Mrs. Emmert will live at Brogado.

Dr. George Logan, '02, and Miss Ada May Swinehart were married January 28 at Akron, Ohio. They will live at Akron.

A. B. Symns, '98, and P. K. Symns, '01, living in Doniphan county, write that they are setting out some trees and improving their orcharding.

The alumni officers of the class of 1901 are sending out letters to the '01 graduates, urging them to attend the alumni reunion at Manhattan Commencement week. The officers expect to have a successful reunion.

R. S. Kellogg, '96, and E. C. Ziegler are authors of a bulletin published recently by the *American Lumberman*. The Cost of Growing Timber is the subject of the bulletin. Mr. Kellogg is secretary of the Northern Hemlock and Hardwood Manufacturers Association.

Miss Bertha E. Ingman, '98, writes to Dr. J. D. Walters from Barnes, Kansas, that her sister Ada, who attended college from '94 to '98 and was for a while assistant in the library, died February 9. A brother, Clay B. Ingman, '97, is a farmer in Washington county.

A. E. Oman, '00, who has been teaching a short course in forestry at the Utah Agricultural College, returned to-day to his work on the Weiser National Forest, Weiser, Idaho. V. E. Oman, '09, is now on his way to Idaho. He expects to settle in the lower Snake River Valley country.

The Topeka alumni of the Kansas State Agricultural College met in the Commercial Club hall at Topeka last

Saturday night. Sixty persons were present. E. H. Webster, '96, and H. W. Jones, '88, made the principal addresses. The officers for the ensuing year were elected. A buffet luncheon was served. About twenty toasts were given.

Arthur H. Helder, '04, now connected with the staff of George E. Kessler, the landscape architect of the park boards in Kansas City and other cities, visited the college this week. Mr. Helder was connected, for four years, with the park board work in Kansas City, Kansas, directed by Mr. Kessler. His brother, George K. Helder, is assistant superintendent of the Fort Hays experiment station.

WHAT THE STUDENTS READ.

Answers to Questions Will Show the Magazines and Papers that are Most Popular.

To determine just how many students read, and what newspapers, magazines and books they read, Miss Estella Boot, assistant in English, has a set of questions for her students in English.

Here are the questions:

Do you read a daily paper?

Do you read any weekly paper or magazine? If so, what?

Do you read any monthly magazine? If so, what?

What books of fiction have you read since October 1, 1910?

What books aside from fiction have you read since October 1, 1910? (Include Bible, if read fairly regularly.)

This work does not include any work done as a requirement of any study in college. No doubt the results obtained will show that a better class of reading is done than most persons suppose.

Anyone who has listened attentively to the conversation of groups of college students is convinced that collegians read, outside of their school work. Magazines are popular, and the newspapers find a ready market. If you don't believe this, listen and you'll hear some student say, "Have you read that last story in the *Saturday Evening Post*?" or "I see *The Star* says."

THE WATTERSON CODE.

To Print Nothing of a Man You Wouldn't Say Face to Face.

Henry Watterson, one of America's great journalists, is said to have the following creed:

"To print nothing of a man which we would not say to his face, to print nothing of a man in malice; to look well and think twice before consigning a suspect to the ruin of a printer's ink; to respect the old and defend the weak, and lastly, at work and at play, day time and night time, to be good to the girls and square to the boys, for hath it not been written 'Of such is the kingdom of heaven!'"

Do You Owe a Note.

Creditors are allowed to receive interest at the rate of six per cent per annum after due when no other rate is stipulated, but you may contract or stipulate for interest at a rate not to exceed ten per cent per annum. Any person contracting for a greater rate of interest than ten per cent per annum forfeits all interest so contracted for in excess of ten per cent, and in addition thereto forfeits a sum of money to be deducted from the amount due for principal and lawful interest equal to the amount of interest contracted for in excess of ten per cent per annum.

Unified Electric Plants."

The regular monthly meeting of the American Institute of Electrical Engineers was held last Tuesday evening in C 60. A paper on the "Advantages of Unified Electric Plants Covering Large Territories" was given by George Barnard and discussed by W. L. Heard and J. H. Bender. J. L. Bye, erecting engineer for the Frick Company, manufacturers of ice and refrigeration machinery, Waynesboro, Pennsylvania, was present and gave a short talk on refrigeration and answered any questions the boys cared to ask. Within a few weeks an engineer from the Electric Storage Battery Company will give a lecture on storage batteries. These meetings are open to the public.

HOT WATER FOR \$12.60.

A SIMPLE CONTRIVANCE ARRANGED BY A COLLEGE STUDENT.

For a Small Amount L. A. Hammers Has One Convenience for Which His House Was Not Equipped—Here Are the Figures.

A hot water system for \$12.60. That is what it cost L. A. Hammers, a student at the Kansas State Agricultural College, to install a small plant for hot water. A barrel was placed on a four-foot table in a closet behind the kitchen stove. A few feet outside the house was a pump to force the water into the open barrel. The pipe from the pump entered the barrel at the bottom, a check valve being used to prevent the water from draining out through this pipe. The two pipes leading to the stove entered the side of the barrel: the cold water pipe three inches from the bottom, the hot water pipe a foot higher. The cold water enters the lower pipe, goes to the stove, and is heated as it passes through the pipes in the fire-box. The hot water is then forced through the return pipe to the barrel. It took about 45 minutes to heat a barrel of water with this outfit. Pipes led to the wash-basin, which was in the closet, and to the bath-room.

Here are the figures for the cost: Pipe, \$3.50; barrel, \$.50; faucets, \$1.60; couplings, \$1.30; check valve, \$1.20; and coil for stove, \$4.50. Total, \$12.60. The coil could have been made for \$2, but Mr. Hammers did not know this when he bought it. This would have made the outfit cost about \$10.

Mr. Hammers has not arranged for cold water, but it can be done at a small additional cost. Place another barrel near the one for hot water, but several feet higher. Pump the water into this. The cold water should run into the hot water barrel from the one holding cold water. A common float regulator could be used. When the water is taken out of the hot water barrel, the float will drop and open a valve in the bottom of the one with cold water, letting the cold water into the other barrel. Pipes could be run from the cold water tank to the sink and bath tub. If you are a plumber, try this plan or a similar one and thus have water in your house.

WORK LESS—EARN MORE.

This Student's Plan, Clearly Described, Should Prove Very Popular.

Why not work less and earn more money?

The most successful farmers have a system for their work: hours for the field, a certain time for stable chores, such as feeding the stock, and a part of every day to read farm papers, magazines, bulletins from experiment stations, and circulars from the United States Department of Agriculture.

The greatest improvement that a farmer can make for his home is a library; and every farmer in Kansas can have one, with little expense. The Kansas State Agricultural College publishes numerous bulletins free, giving the results of experiments that have been worked out in various lines of agriculture by experts. The bulletins give instruction as to what kinds of feeds are best, and how much of every kind should be used. Many of them deal with the diseases of animals, in which farmers are interested.

The United States Department of Agriculture is publishing books and circulars every year that any farmer, or any one else, may have by writing for them.

MONEY IN REARING SQUABS.

Not Much Work Connected with the Industry—The Necessary Things.

There is considerable easily earned money in rearing pigeons. In large cities \$3.50 to \$3.75 a dozen pair is paid for them. The demand is always greater than the supply.

Many breeders find good markets at hotels and summer resorts. Others have private customers. Much profit is lost if the squabs have to be shipped to market, as the express

charges are high. The Kansas City market is below that of eastern cities, but is steadily improving.

Three things you must have to be successful in rearing squabs: clean, sweet grain; plenty of pure water, and clean shelter. The squab house should be cleaned before the breeding season.

It is a bad plan to start with an inferior breed. Some good breeds of pigeons are the Homer, Carneaux, and Runt. The arrangements for rearing pigeons are not expensive. A flying pen ten by seven feet is large enough for fifty pigeons. The loft of a barn will do for this purpose. There should be a three or four foot alley in the squab house. Plenty of sunshine is necessary in the winter. In the summer the sun should not be allowed to shine into the squab house.

Pigeons will not bathe in deep water. Therefore, pans not deeper than four inches should be provided. New blood is not needed every few years as in the chicken business.

The squab of the best breed is ready for market when about four weeks old. At this age it is in prime condition. It does not gain much afterward.

In caring for pigeons one should go about quietly and never frighten them.

In starting in the squab business one should not let color and fancy fads precede size and breeding qualities. The largest and strongest birds should be selected for breeding.

MEALS FOR FOUR, \$1.25 A DAY.

Three Menus Which Would Appear to Suit the Appetite of Everyone.

Omelet for breakfast, roast beef for dinner, cold sliced beef for supper. These, with side dishes, make the grocery and meat bill for a family of four amount to \$1.25 a day. These menus show how it can be done.

BREAKFAST	
Omelet	Sliced Oranges
Coffee	Buttered Toast
DINNER	
Roast Beef	Browned Potatoes
Diced Buttered Carrots	Tomato Relish
Rolls	Butter
Apple Pie	Coffee
SUPPER	
Cold Sliced Beef	Potato Salad
Bread	Butter
Cocoa	Baked Custard

PLANTING THE ORCHARD.

Break Land the Fall Before Setting Trees
—Winter Will Kill Insects.

To estimate the number of trees required for an acre, at any given distance, multiply the distance between the rows by the distance between the trees and divide 43,560, the number of square feet per acre, by this result.

The following table gives the correct distances for planting fruit trees:

Apple, 30 to 40 feet each way; apple, dwarf, 10 to 15 feet; pear, 20 to 30 feet; pear, dwarf, 10 to 15 feet; plum, 16 to 20 feet; peach, 16 to 20 feet; cherry, 16 to 25 feet; apricot, 16 to 20 feet; nectarines, 16 to 20 feet; quinces, 8 to 14 feet.

In starting an orchard, it is well, of course, for the inexperienced orchard-man to get expert advice on the selection of stock. Don't economize by buying cheap trees. Before they are shipped to you insist that they be well fumigated, for many a promising orchard has been ruined by disease contracted before transplanting.

In picking out the site of the orchard it is better to choose a piece of ground that has been well fertilized with manure the year before. The fall previous to setting out your orchard, plow up the whole tract that you intend to use. Then in the spring plow again and set your trees deeply into the soil; i.e., below the hard pan. The roots must fit into the hole without crowding. Good, rich soil ought to be sifted around the roots first and tamped lightly, breaking air-holes. Fill in the poorest soil on top.

The best time to thin peaches is when the pit is hardening, between 35 and 40 degrees latitude, is June 10. Further south the work should be earlier.—Agricultural Southwest.

PLANT-FOOD IS THERE.

A COMMON ERROR ABOUT MANURE AND ITS COMPOSITION.

The Farmer Who Has Live Stock Can Get Along Very Well Without Commercial Fertilizers—The Importance of Crop Rotation.

Do not be deceived about manure. Commercial fertilizer enthusiasts sometimes say that barnyard manure lacks one or more of the essential plant-food elements and that when applied to the soil it should be supplemented by commercial fertilizers. Barnyard manure is almost a complete fertilizer. It contains the important plant-foods—nitrogen, phosphorus and potassium—in nearly the proportionate amounts that growing plants require. The reason for this is that manure originally comes from the field crops themselves.

A. M. Ten Eyck, superintendent of the Fort Hays experiment station, says Kansas should stay away from the commercial fertilizer idea as long as possible. There is enough plant-food in ordinary Kansas soil to produce paying crops for many years, providing it is correctly farmed.

In

HOW TO DEHORN A CALF.

CAUSTIC POTASH, USED AT AN EARLY AGE, WILL STOP THE GROWTH.

Here's a Simple Plan, Approved by a Station Expert, Who Tells How to do the Work—A Few Precautions.

The best way to dehorn a calf is to prevent the growth of horns, before they get a start, by the use of a little caustic-potash. The operation should be performed when the calf is from one to three weeks old, or as soon as the button of the horn can be distinctly felt when rubbing the hand over the poll. Dr. Burton Rogers, of the veterinary department, tells how to go about the work.

The only articles necessary with which to dehorn are a sharp pair of shears or clippers and a few sticks of caustic-potash and a little water. Back the calf into a corner, or into any narrow place, and put its head between your legs, holding it firmly. Find the out-growing horns and clip the hair from the spots about one inch in diameter. Then take a piece of caustic, wrapped with paper at one end to prevent burning the fingers, and moisten the other end slightly and rub on the coming horn. Be careful to get none on the skin of the animal except over the budding horn.

The ease with which this can be done, its rapidity in healing, and the minimum amount of pain it causes the animal make it one of the most humane and modern methods of preventing horns. Do not use this method while the flies are active unless you can protect the animal.

GET A VACUUM CLEANER.

Not an "ad;" Just a Hint to Help Farm Women.

Throw away the brooms; stop the drudgery, use a vacuum cleaner. A woman living in the country can use one just as well as a city woman. The hand-operated vacuum cleaner answers the question. Women are testifying to this at every farmers' institute. One woman living near Topeka, a Mrs. Otis, brought her machine to the meeting so that other women might see it and the kind of work it did. Mrs. Otis has used the machine for over a year and it has given perfect satisfaction. It has paid for itself in money as well as in labor saved. She rents the machine out by the day or hour to her neighbors.

Hand-operated machines are inexpensive. They not only lessen the labor, but what little is necessary with one is so light that it is recreation for most women. Instead of taking a week two or three times a year for a thorough, or supposedly thorough, housecleaning, any one can go over every rug and carpet in the ordinary house in a day at the most, and the cleaning will be well done. After the house is once cleaned with one of the vacuum cleaners the subsequent cleanings are very much easier. It has been said that every beating shortens the life of a rug or carpet six months. With these machines the tacks have to come up only when you move.

A TRAP FOR RABBITS.

Trees Must be Protected, and a Bulletin Tells the Way.

In Kansas the damage done by rabbits is comparatively light, and yet many young orchards, young shade trees and windbreaks have been completely destroyed. It is very important to remove all brush piles and thickets, which may serve as breeding places and for safe hiding.

Traps of various sorts may be constructed. A simple and successful method is to sink a barrel in the ground level with its surface. Fit the head slightly smaller than the top and allow it to swing freely on a rod or old broom stick. Pieces of apple or grains of corn may be placed on the outer edge of the cover and when the rabbit attempts to get these, the lid tips up and he slides into the barrel, while the lid, which is slightly heavier on one side than the other, assumes its original position. The heavier side

should strike against a heavy nail or bolt so that only the lighter side of the lid will drop. The whole thing should be covered over with brush or light, flat stones to make an enticing place for the rabbit.

A bulletin describing traps and poisons may be had upon application to the director experiment station, Kansas State Agricultural College.

CONSIDER THE LOWLY TOAD.

Like a Gossip, Its Tongue Moves Swiftly, but to Better Purpose.

Don't kill the next *Bufo lentiginosus americanus* you meet. In short, don't kill the toad. He is harmless, in general, and in the fields and gardens he is helpful, as he eats all kinds of noxious insects.

Scientists have often wondered, just as you have done, what the toad eats. Here is the result of an investigation showing what 100 toads—slaughtered in the interests of science—had eaten: angle worms, thousand legged worms, cutworms, army worms, tent caterpillars, miscellaneous caterpillars, snails, sow bugs, spiders, grasshoppers, crickets, ants, beetles, flies. The quantity is as startling as the variety. The amount taken every twenty-four hours is about four times the stomach capacity. The toads examined averaged 100 bugs a day, not a bad day's work for the mistreated father of the pollywog. Nearly every bug the toad eats is injurious to plant life.

The toad spends its winters in the ground. It chooses a mellow spot and digs into the moist earth until it reaches a point not affected by the freezing and thawing of winter. Here it sleeps for four or five months, eating nothing and breathing little.

OLD MAN OF THE MOUNTAINS.

How the Disagreeable Word "Assassin" Was Coined in Early Times.

The word "assassin" is an Arab plural, meaning eaters of hashish, a narcotic obtained from the leaves of common hemp. On the differentiation between the meaning of hashish and that of assassin hangs a most interesting tale of life in the Middle Ages.

In the eleventh century there lived between Antioch and Damascus a Mohammedan fanatic, a sheikh, by name Hassan ben Sabah, known to history as "the Old Man of the Mountains." He dedicated himself and his forty thousand followers to the extermination of the Crusaders who were at that time in the Holy Land. He sent his followers out, a few at a time, to murder the leaders of the Christians by all manner of secret means. Obeying him blindly, they went forth, even to their own certain death, believing that in sending a Christian soul out of this world they were assuring eternal happiness for themselves.

Before going forth to murder they used to intoxicate themselves with hashish, apparently to nerve them to their crimes; whence they were called hashshashins, pronounced assassins in English as late as the seventeenth century. For one hundred and sixty years these fanatics were a terror to Christians in the Holy Land, until they were finally exterminated in 1240. Nothing is left of them now except a memory and the odious word, assassin.

THEY'RE MAKING HEADS.

A Lump of Clay, in this Class, Becomes a Thing of Beauty.

Can you take a lump of clay and fashion something that resembles the model set before you? It is no easy matter to make a head, and make it so nearly like the original that you won't have to apologize to the model?

Fifteen students are enrolled in the clay modeling class, taught by F. C. Harris, assistant in architecture and drawing. The students first have a simple cast for a model. When they have progressed far enough a leaf is used for a model, and so on. Some of the members of the class are modeling heads, and Prof. Harris expects soon to have the students work on figures. He is now working on a relief of Andrew Carnegie for the library

at Anthony, Kansas.

DON'T SELL YOUR CORN.

PUT IT IN HOGS, IS THE ADVICE OF THOSE WHO KNOW.

Alfalfa Pasture is Good for Preparing Hogs for the Fattening Pen—Profit From One Hog Should be at Least \$9.

The money relation between corn and hog prices is never so great that feeding hogs does not pay. The average hog makes ten to twelve pounds of pork from a bushel of corn.

If you are feeding a fattening steer you cannot expect more than five or six pounds of beef from a bushel of corn he eats. So it is clearly seen that feeding hogs is the more profitable.

System must be used in rearing these hogs. From the time the pigs are two months to five and one-half months old you must do two things: develop strong bones and muscles and healthful digestive organs, so the pigs will be big enough when they go into the fattening pen to turn the largest possible amount of corn into pork.

PASTURE, CHEAPEST FOOD.

Pasture is the cheapest and best food in preparing the hog for the fattening pen. Corn alone will not do. Some corn with shorts and oil meal will be beneficial, but the pasture contains the protein necessary for growth and should be depended upon as the chief source of this supply.

The best single pasture plant is alfalfa and may be used for middle summer, early spring, and late fall. A mixed pasture of oats, wheat and barley, with timothy or clover sown either before or after the other grains, makes a good hog ration. One acre of such pasture will furnish feed for fifteen to twenty hogs, and at the present price of feed is worth from \$20 to \$25.

FEED FOR FATTENING.

When the hog goes into the fattening pen feed nine parts of corn and one part tankage, with plenty of good fresh water. A rack with some good alfalfa will prove of benefit in the hog pen.

By the time the hog is nine months old, the cost of marketing will be about \$9.10, which includes 600 pounds of corn at 45 cents a bushel; 50 pounds of tankage at \$50 a ton, 256 pounds of alfalfa hay at \$10 a ton, also a value of \$1.75 for the pig when six weeks old.

The hog should weigh 280 pounds at selling time. At 6½ cents a pound it would bring \$18.20, or \$9.10 for the labor and trouble involved in rearing it.

PLAN THE HOTBED NOW.

How You Can Have an Early Garden This Year.

Every home owner likes to have a variety of early vegetables in the garden. To have them, a hotbed is necessary. In this climate hotbeds can be made February 1, but March 10 will do as well. The manure for the bed should be placed in a loose, conical pile to ferment. A bed twelve feet long and six feet wide will be large enough to grow vegetables for the average family. This size will require four sashes. The frame of the bed should be made of inch lumber, twelve inches high on the north side and eight inches high on the south side. The bed should be on the top of the ground. If placed in a pit the manure may be drowned by heavy rains. The manure should be piled one foot deep inside, and heaped up about the sides of the frame. The hotbed should be in a sheltered place. After tamping the manure, pour upon it one gallon of water for every three square feet of surface. Then cover with five inches of black, loamy soil.

If you haven't started it the chances are that seed planted by March 10 will be ready to transplant in plenty of time. Some start the bed February 15 to March 1 and very often the plants are too far advanced by the time frost danger has passed.

Too many young men and women are trying to earn livings as book agents, bill collectors, song writers, hackdrivers, or motormen, while the world is crying for "hired help."

A SUMMER SCHOOL

at the Agricultural College
For the Teachers

Spring Term begins March 28 and ends June 14.
Summer Term begins June 15 and ends July 27.

Agriculture, Manual Training, and Home Economics

About one-half of the country school-teachers of Kansas will close their terms of school before the opening of the spring term of the agricultural college, March 28. The college, therefore, suggests to these teachers the advisability of the investment of money and time for both the spring and summer terms, giving principal attention to the vocational subjects.

The Courses Offered:

Spring Term:

Home Economics: Domestic Science; Sewing; Dress-making; Home Decoration.

Drawing: Free-hand; Geometrical; Object; Perspective; Water-color and Design.

Manual Training: Two courses in Woodwork; two courses in Blacksmithing; Mechanical Drawing.

Agriculture: Elementary Agriculture; Live Stock; Farm Crops; Stock Judging; Grain Judging; Poultry; Plant Propagation; Small Fruits; Market Gardening; Landscape Gardening.

Education: Methods of Study; Methods of Teaching; School Management; Industrial Education.

The Spring Farm Work

Teachers who enter for the spring term will have an opportunity to observe much of the experimental work conducted at the agricultural college.

The summer term does not differ materially from the courses preceding it. The course in elementary agriculture will be offered during the summer session primarily for teachers who expect to teach this subject in country schools or village schools, and especial attention will be given to methods of teaching elementary agriculture in the rural school or in the grades in the village, with suggestions for laboratory work. Those who have time to take two or more of the other subjects named above will not need to take this course in elementary agriculture.

Expenses

The only fee charged by the college will be the regular incidental fee of \$3.00, which the state law requires to be charged of all students who are citizens of Kansas. Nonresident students will be charged a fee of \$20.00 for the first term and \$10.00 for each term thereafter. Board and room may be had for from \$4.00 to \$5.00 per week.

For further information address

H. J. Waters, President

Manhattan, Kansas

DRY LAND FOR GESE.

DUCKS, ALSO, CAN GET ALONG EXCELLENTLY WITHOUT A POND.

Green Stuff Picked up Around the Farm Does for Food—Market is Good if the Ducks and Geese Are "Green."

The only water a duck or a goose needs is water to drink. You don't need a pond. If water is near they will naturally go to it, but it is not necessary, as they will thrive just as well on dry land.

Many farmers say there is no money in raising ducks and geese, but F. S. Jacoby, assistant in poultry husbandry at the Kansas State Agricultural College, says this is a mistake.

Ducks and geese are easier to raise than chickens. After they are a week or two old they require no attention except that they must have a place to shelter them at night and protect them from the early morning dew. Their food, after they are a few weeks old, consists mostly of grass and other green stuff picked up around the farm. If there is an alfalfa field near it is an ideal place for them to feed.

The trouble with most farmers is that they wait too long before marketing their ducks and geese. Buyers want a "green" duck or goose. A

"green" duck is one from eight to ten weeks old; a "green" goose, one not more than one season old.

The Pekin duck and the Toulouse goose are recommended by the poultry department.

SIX HUNDRED VISIT FORT RILEY.

Army Officers Entertained the Animal Husbandry Students Last Monday.

About 600 students, boys and girls interested in live stock, went up to Fort Riley last Monday to inspect the army horses. The outing was arranged by the animal husbandry department of the college.

A special train left Manhattan at 8:30 a.m. Arriving at the fort an hour later, the students found the officers and an escort awaiting them. A program had been arranged previously, including talks by various army officers upon the cavalry and artillery horse, the thoroughbred, and polo ponies. These talks were both interesting and instructive.

During a part of the afternoon the officers gave an exhibition of riding and jumping, a feature of interest to everyone. Time was spent in inspecting the buildings and grounds. The return train left the fort at 4:30 o'clock, arriving home in time for supper. The army proved a very hospitable host, extending many courtesies to the visitors which are not often

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MAKE \$500 FROM AN ACRE.

GROW HEAD LETTUCE, FOR WHICH THERE ALWAYS IS A BIG DEMAND.

For Early Market Use Plants From the Greenhouse—Grow Best in a Well-Drained, Light Clay Soil.

If you have an acre near a town or city, why not make \$500 from it? This can easily be done by growing head lettuce. The demand for it always is equal to the supply.

For the early market, use plants from the greenhouse, and prick them out in plots or sunken thumb-pots filled with rich, fibrous loam. After thoroughly hardening by exposure for a week or more in a cold frame, take the plants up, with a chunk of soil, and just as soon as the weather permits plant them in very rich well-prepared loam outdoors. Plant in rows one foot apart, set six or eight inches apart in the rows.

USE THE WHEEL HOE.

Light applications of nitrate of soda, either broadcasted over the patch at the time of setting the plants or very soon after, or along the rows, seldom fail to assist in hastening an early growth and to increase the size of the heads. Free use of the wheel hoe keeps the soil loose and the crop free from weeds, and also hastens it to early market conditions.

Head lettuce will grow best in a well-drained, light clay soil, slightly mixed with sand. The soil should be full of humus and heavily manured with well-rotted stable fertilizer.

IN PLANTING LETTUCE.

When planting a patch of lettuce it is well not to plow more ground at one time than one can fill with plants in one day, especially in sunny weather, as the ground is likely to dry off too much on the surface. A light sprinkling is beneficial after the lettuce has been transplanted. Warm, cloudy weather is best suited for planting lettuce. The plants must never be planted deeper than they had been growing in the seed-bed. At time of setting the first plants in open ground also sow a patch with a garden drill, using seed sparingly and covering it lightly, say one half inch deep. The plants of drill-sown lettuce should be thinned early, so that they stand five or six inches apart. In due time every other plant can be taken up for market, while the remaining ones have a chance to grow to the largest size.

From early spring until August sow a few rows of this summer lettuce every two weeks or so, and thus try to provide a continuous supply of good heads. The demand may drop off for a few days, or weeks, but it is sure to revive.

HOW TO MAKE A GOOD LAWN.

Suggestions Showing How an Artistic Effect May be Acquired with Little Trouble.

A good lawn makes a home attractive.

The location of the lawn depends upon the site of the house. If possible choose a south or east side, insuring warmth in the early spring. The heat of the summer sun should be overcome by shade.

The seed may be sown any time from March until May, but March is the better time. If sown in June it is best to sow one or two quarts of oats to every 300 pounds of grass seed. The oats grow quickly and shade the grass.

Kentucky blue-grass makes a very pretty lawn. From thirty to fifty pounds to the acre should be sown. Some persons prefer to mix clover with blue-grass. In this case, sow three or four pounds of clover seed to an acre. Sow the seed broadcast. Care should be taken to get an even stand and prevent the growth of weeds.

After the seed is sown the lawn should be rolled to pack the earth around it.

The lawn may be mowed every two weeks in the spring and at longer intervals in the summer. It should never be mowed too late in the fall.

After freezing and thawing, the lawn should be rolled to pack it.

In watering, let the water run until the ground is soaked. Frequent, light sprinklings cause the roots to grow too near the surface.

No lawn is complete without trees and shrubs. The larger trees should be planted in the background, with the shrubs and smaller bushes in front of them. Strive for naturalness in the arrangement of your lawn plants.

HATCH ANY NUMBER OF CHICKS.

Pure Air and Sunshine are the Poultry Breeders' Best Friends.

Artificial incubation has been reduced to such a science that it is comparatively an easy matter to hatch any number of chicks. The newly hatched chick is very tender, and even under the best of care some of the brood are sure to die. Naturally, the food is very important. The poultry experts of the Kansas State Agricultural College feed the newly hatched chick crumbly food for the first three weeks, then nothing is used but dry feed, consisting of fine seeds, cracked grain, and "corn bread" baked crisp and then crushed fine.

Clean, dry quarters, kept free from lice and mites by spraying, and plenty of pure water to drink at all times, are prime requisites in rearing a brood of chicks. Do not crowd your poultry quarters. It does not pay.

Chicks properly fed, housed and cared for will need no medicine. Give them all the sun possible, but protect them from the raw spring winds. Pure air and sunshine are the poultry breeders' best friends.

BENEFIT FROM THE BACK YARD.

Lettuce, Radishes, Carrots, Turnips, and Other Vegetables Can be Grown Easily.

Why should vegetables be bought when by doing a little interesting and relaxing work they can be grown in the back yard? Lettuce, radishes, carrots, turnips, and other vegetables can be had in all their freshness and delicious flavor. Not only can sufficient vegetables be grown for immediate use, but if the available space is large enough a supply can be put away for winter.

Almost any kind of box can be utilized for raising vegetables on the back porch. Six to ten inches of good soil, thoroughly mixed with one fourth well-rotted manure, should be put in the box. Bore holes in the bottom so the water may drain off without souring the soil. Frequent cultivation of the soil is necessary to get a healthy, vigorous growth.

Some of the things that may be grown in boxes are radishes, lettuce, onions, carrots, kohlrabi, dandelions for salad, and beets for soup, with the tops as a substitute for spinach.

Paint Makes Home Attractive.

Nothing gives more pleasure than a farm home where paint is used liberally. Rough winter weather breaks and wears the thin protecting film of paint on the house, barn, vehicles, and all else exposed to the weather. The "sunshine and shower" spring weather wets and dries the wood frequently. The paint begins to scale off in large flakes and the boards warp and split. The fellos in wheels swell and shrink, and even before spring is gone the tires are loose and the wheels need soaking every time before using. A light coat of paint does the work. It prevents water from gaining entrance to the wood and prohibits the destructive effects of swelling and shrinking.

NO MYSTERY IN CELERY.

A CAREFUL, INTELLIGENT GARDENER CAN GROW IT IN PLENTY.

Here are Directions for the Work, Beginning With the Hotbed, Through the Transplanting Time, and on to the Bleaching Process.

No deep secrets surround celery growing. It just requires careful cultivation. A profit of \$200 an acre will be a fair return, although in many instances more has been realized. The grower who is handy to the market and has a rich, loamy soil available has two important requisites.

Celery is best grown from seed planted in the hotbed. Sow the seed in a hotbed or cold frame about April 1. The rows should be six inches apart and the seed covered to a depth of one eighth of an inch. Shade the soil lightly, keep it moist and at a temperature of about sixty-five degrees. When the plants have reached a height of three inches, thin the rows by transplanting. This will harden them and get them ready for planting in the field.

RICH SOIL NEEDED.

At the Kansas State Agricultural College the best plot for growing celery has been found to be one of rich soil, protected from winds, and lying low enough to be easily irrigated. The soil is enriched heavily in the spring with well-rotted stable manure. It should be plowed deeply and cultivated thoroughly to insure mellow ness at the time of transplanting from the hotbed.

The plants may be set out safely after the middle of May. Mark off rows four feet apart and furrow with a stirring plow, throwing the ridges in the same direction. Set the plants six inches apart on the side of the furrow nearest the ridge and a little above the bottom. In cultivating, keep the furrow open and use it for an irrigation ditch.

KEEP THE GROUND MELLOW.

As soon as the plants have a good hold, begin a careful cultivation and keep it up until digging time. Keep the ground mellow and destroy every weed. A small hand cultivator is the best tool to use the first time in a garden, loosening the ground between plants with a hand weeder. Be careful that you do not get dirt in the hearts of the plants. An occasional spraying, every two weeks, with standard Bordeaux mixture, will be found valuable.

As soon as the plants have attained the proper size for use, bring the leaves into an upright position by placing boards on each side of the rows. These should slope toward the plants at the top. Another method is to draw dirt firmly around the plant and pack it. This will exclude the light from the heart of the plant and cause the later growth to be white, or bleached. This process lasts from two to three weeks.

BEST TIME TO MARKET LAMBS.

No Definite Rules Can Be Given, But Here Are Some General Hints.

When is the best time to market lambs? This is as hard to answer as the questions of what crop to plant and how deep to plow the ground. No definite rules can be given. As a rule, however, the best time to sell the lambs is when they are in good shape. A lamb should not weigh over 100 pounds. If it does, it may be classed as a yearling and the price reduced. The average butchered trade requires lambs from 60 to 80 pounds.

In looking back over the market reports for the last twenty years, one will find that the months in which the best price was paid are March, April, May, June, and July. This is because the western lambs come in the last part of spring or the early part of

summer, and when these large flocks arrive the price is sure to drop. The variation in the months is because of the variation in the time when the majority of these flocks of lambs are ready for market. If there is an early spring or an open winter in the West, the lambs are ready for market earlier. If the winter has been hard in the West or there is a cold spring, the lambs arrive late. If the leading live-stock papers are read, one can tell, to some extent, how fast the lambs are fattening, and will be able thereby to tell better when to market his own lambs.

PLACES FOR SHORT-COURSE MEN.

Nine of These Will Work in Creameries in Kansas, Missouri, and Oklahoma.

Nine students, who have just completed the short course in creamery study, now have positions in Kansas, Missouri, and Oklahoma, averaging in salaries from \$65 to \$75 a month.

These students, accompanied by O. E. Reed and A. W. Rudnick, assistants in dairy husbandry, enjoyed trips this week to Topeka and Kansas City, where they visited various institutions. The members of the party were the guests in Topeka, Monday, of the Continental Creamery Company, under whose guidance they visited the various creameries and packing-houses in Topeka.

In Kansas City yesterday they were the guests of the Creamery Package Manufacturing Company, and visited the American Creamery Company, the Missouri Dairy Company, the Franklin Ice-Cream Company, the Pure Milk Company, and the Armour packing plant.

WHY LEAVE THE FARM?

It Is Not Necessary for the Older People to Move to Town.

Much has been said about keeping the boy on the farm. But what will become of the old folks if the boy does stay on the farm? It is not necessary for them to give up the farm entirely and move to town, as many of them are doing.

Director A. M. Ten Eyck, of the Ft. Hays Experiment Station, in a lecture to his class in farm management at the Kansas State Agricultural College recently, said: "I don't believe that one half of the retired farmers that move to town are satisfied. Some of them know that they won't be satisfied before they move, but they feel that they must get out of the way and give the boy a chance. I think they are mistaken. The farmer can build another home for himself or for the boy on some other part of the farm. Then, while the boy is running the farm, his parents can 'take it easy.'"

It is no longer necessary to move to town to get the modern conveniences of living.

It is to the interest of the farming community as a whole to keep the older men on the farm. The man who moves to town loses sight of the interests of the community he lived in and the community loses by it.

NOT SOFTENED BY TIME.

A Pretty Tough Proposition, This, Any Way You Take It.

"That chicken I sent you," said the farmer, "had been with us for years. It seemed tough to kill him."

"Yes," responded the man who had bought the chicken. "It seemed pretty tough to eat him, too." —*Fall River Globe*.

Students May Make Up Studies.

Students of the Kansas State Agricultural College who wish to make up American history and civics will have an opportunity to do so this year at the summer school of the State University. Prof. R. R. Price of the college will teach these two studies,

coming under the head of American history and American government. The university summer school will open June 8.

HINTS FOR THE GARDEN

SOME SUGGESTIONS THAT SHOULD GIVE GOOD RESULTS.

If You Like Sweet Peas Sow the Seed as Early as Possible—Prune the Hardy Roses in March—Care of Other Flowers.

Start the garden by sowing beans, lettuce, peas, radishes, and spinach in a hotbed. The vegetables will soon be available for the table.

As soon as the soil can be worked in the garden sow the smooth, early varieties of peas.

For early rhubarb, put a headless barrel over a root of the plant, and pile fresh horse manure around it.

The earlier sweet peas are sown the larger the number of flowers produced.

Jack Frost hasn't any terrors for the poppy. Just sow the seeds on the surface of the soil and give the flowers an early start.

March is the time to prune the hardy roses—climbers, rugosas, and hybrid perpetuals. Wait until next month to prune tea-roses and hybrid teas.

Hardy hydrangeas bloom on the current year's growth. To grow large heads cut the canes back heavily.

Roll the lawn to firm the soil about the grass roots. The top soil has been loosened by the heaving of the frost.

To kill the San José scale spray the trees with lime-sulphur wash, or a soluble oil, just before the buds start to swell.

Grapes should be pruned before the sap starts to flow in March or April.

The chrysanthemums that produce the largest flowers are started early. Propagate by cuttings taken from the suckers of the plants held over from last fall.

Cannas for next summer's beds should be started now, in the house. Separate the roots, having a piece of stem to every tuber. Put them in small pots. Transfer them to the garden as soon as the frost is out of the ground.

SILAGE CHEAPER THAN FODDER.

The Results Shown From an 88-Day Test on 50 8-Months Calves.

Corn silage is a cheaper feed than corn fodder. Fewer acres are required in fattening live stock if the corn fodder is fed as silage, and if fed to the dairy herd it will increase the milk production from 5 to 11 per cent.

Here are the results of an 88-days' test on fifty eight-months-old steer calves. The calves, averaging 500 pounds, were separated into two lots of 25 each. Each calf received four pounds mixed hay and two pounds oats, daily. In addition, the calves in Lot I were given corn silage, and Lot II, unhusked shock corn. The corn forage was grown in the same field. Ten shots, averaging 65 pounds, were placed with each lot of calves.

Each calf in Lot I received the daily ration of 26.1 pounds silage, 4.6 pounds mixed hay, and 2.0 pounds oats, making a total of 28.8 tons corn forage cut from an area of 3.7 acres. The steers gained a total of 3693 pounds and the shots 87 pounds. The calves in Lot II received as a daily ration 13.2 pounds shock corn, 4.0 pounds mixed hay, and 2.0 pounds oats. A total of 14.6 tons corn forage were fed, cut from 5.3 acres. The steers gained 3133 pounds, while the shots gained 587 pounds.

Combining the gains of calves and pigs in each lot, the gross returns are practically the same, but measured by the area of land required, corn silage is 30 per cent better than shock corn in feeding value.

Entertained English Faculty.

The English faculty members were entertained Thursday night by Miss Furley and Miss Boot in the home of Dr. McKee.

THE KANSAS INDUSTRIALIST

Issued weekly during the college year by the Kansas State Agricultural College, Manhattan, Kansas.

PRES. H. J. WATERS Editor-in-chief
PROF. C. J. DILLON Managing Editor
DR. J. D. WALTERS Local Editor

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THE WORKERS.

The farmers are not the only persons who believe themselves overworked. This funny old world is filled with them. They are in every department of life. Some men really carry heavy burdens, and carry them cheerfully and with smiling faces, but there are others who cast double-length shadows wherever they go. These men scatter no seeds of kindness as they pass along. They leave behind them no memories that are pleasant. They tear out of bed a trifle late, blaming everyone in the house for letting them sleep, or they crawl out ahead of others and ruin the family's rest. Theygulp down their breakfast with an accompaniment of scowls and grumblyings. No one ever hears these high-speed, over-worked, "Do It Now," "This Is My Busy Day," sort of men bid a wife or son or daughter "good morning." They haven't an instant for civilities or the ordinary amenities of life. They haven't a moment for a chat at noon or a story for the children in the evening.

The office walls and the desks of the Workers abound with the placards mentioned a moment ago. They are feared or hated, or both, by every employee, these men—and often by those dependent upon them. If they go to a theater they seldom smile. If they break into church they sit, usually, with unbent knees and uncompromising neck. They are thinking of their work; they dream about it; they talk about it whenever they consent to address anyone at home or in the street-cars. They are members of the Grand Order of Shop Talkers, and not another thing on the face of this glorious earth has an atom of interest for them. "My work," they bellow and bluster, "I'm always at work; not an hour for play, not a moment for rest."

But time is going along just the same for these unhappy mortals as it passes for those that love the sunshine and some of the joys of life. It goes no faster no matter how tremendous the task—which is obvious and trite, perhaps, were it not forgotten by the Workers. No factory in the United States ever stopped for an hour because some one man was ill or dead, unless in compliment. No newspaper ever missed an issue or was one whit the less interesting when some good fellow was dropped—which may surprise some persons. There is hardly a responsible place, more's the pity, in all the world that cannot be filled within an hour's notice, and business go on much as before. No man has a monopoly of ability. It doesn't exist. It cannot be cornered. No trust will ever control it. The Workers might just as well cease from worrying and, as Riley would say, just be glad.

More fine natures have been warped through this misconception of work than through any other cause, save politics. More homes that might have been the shelters of happy men and women have been turned into refrigerators by this fool idea than by woman suffrage and men's clubs. You cannot make a Worker of this class believe there is anything else worth discussing except his job or his especial office hobby, his system, or his Great Idea. The most successful men in the country, it must be admitted, are One Idea men. They don't know a thing

except that One Idea—and therefore many of the most successful men are, *per se*, the most disagreeable persons. Without them knowing it, perhaps, until it is too late, they are avoided by those who would be tip-top companions. Few men have any desire to meet them. They are bores with their everlasting Work.

"It's a fierce struggle," the Workers cry, "the Cost of Living is terrible—we must hurry to work. Eggs are going up to \$2 a dozen next winter if the Brennan bill passes in New York—no more storage goods, you know—we must hurry. There's work to do at the office."

What these men need is a back-yard garden; a hotbed, some tools, and a few hours every day with the festive radish and the flirtatious lettuce and beet. Nothing like a spade and a hoe to take the kinks out of troubled brains. Don't mind your idle neighbors who delight to go by and drop curbstone humor as they pass; jump into that back yard every morning and every night and get your nose close to the soil, the soil that will get the whole of you if you don't turn about and face the sunshine. Too much work at the office? Bunc.

THE CHANGING STANDARD.

During the last few years there has been a rapid rise in the standard of living, which has affected those who live on the farms as well as those who dwell in cities, says a writer in *The Missouri Ruralist*. I am referring to those things that come under the heading of "foods" only in a general way. There has been widespread education through the medium of schools, churches and social and political channels, which has had its effect on those who dwell in the country as well as they who live in the city. The members of the average family, especially the younger members, feel a pressing need for a higher standard of physical comfort. This, in turn, calls for more leisure in which to enjoy these newly developed longings. Seldom do we see the old-time parlor, closed tightly excepting on state occasions. Now the young people have very definite ideas as to how the parlor shall be furnished, and unanimously elect that it is for daily use. Pianos are not especially rare in many parts of the country, and pianos call for leisure and social gatherings, and time for practice. We welcome this refined amusement and learn that it develops the yearning for other things, like better furniture, reading matter, and the general gratification of intellectual and spiritual needs. Along with these ever-growing wants, we need the means of supplying them.

If our young people simply demand more and yet more of music, literature, art, social amusements, and leisure, without any other idea than to have father and mother work harder and sacrifice more and more, we have the anomaly of the most narrow sort of development. But, if along with this call for a higher standard of living, our young people grasp the meaning that all these are produced by labor, that some one must work besides father and some one sacrifice besides mother, such increased standard of living means much to their generation. No doubt that John can be trained to produce more and better results with an average of ten hours a day than sixteen hours would have done a couple of generations ago. And Mary's work in the home not only becomes a help to mother, but actually lifts the heaviest burdens from her shoulders. This is what a sane and practical education along the lines of farm and home development should do for our young people.

THE FOIBLES OF WOMEN.

Without desiring to voice any opinion as to the propriety or impropriety of woman suffrage, isn't it peculiar how many men you meet—and women, also—who say, talking of some foolish incident, "Isn't that just like a woman?" Why "just like" a woman? Have women done one half the fool things that men have to their discredit in the book above, or in the records

A Golden Text.

If any man have ears to hear, let him hear.
And he said unto them, Take heed what you hear. With what measure ye mete, it shall be measured to you; and unto you that hear shall more be given.
—St. Mark IV: 23, 24.

below? Why is it that a lot of yaps think it smart to saddle every ridiculous error of life upon the women? Are their hats the cause of it? Their skirts—divided against themselves, it is true? Or their rats or frizzies or puffs? Is that the reason that women are supposed to be equipped with flap-doodle brains?

How about the fried-egg Derby's the men wore twenty-five years ago, now coming into strong favor all over the country, a hat that makes an otherwise honest-appearing man resemble a forger or a porch climber? What about the skin-tight trousers of the same period and the absurdly baggy ones that followed in men's fashions? Did women ever affect celluloid neck wear? Have they ever bedecked themselves with one tenth the hideous colors that thousands of men allow in their ties? Was ever a woman arrayed with one half the frippery that goes upon the ill-shapen frame of hundreds of dandies, once called dudes, who block the cities' streets on shopping days? Women, forsooth and lack-a-day!

DRY FARMING TRUTHS.

"Dry Farming," by John A. Widtsoe, president of the Utah Agricultural College (published by the Macmillan Company, New York), is a recent contribution to modern agriculture. It appears as a number of the Rural Science Series, of which L. H. Bailey, dean of agriculture at Cornell University, is editor.

In this volume of about four hundred pages, excellently illustrated, the author presents, in well-organized and logical order, scientific facts underlying the production of crops in regions of limited rainfall. The book appears at an opportune time, because of the great need of reliable information upon the subject of dry farming. The semi-arid West is that part of the United States lying beyond the 100th meridian to the Pacific Coast, extending from Canada on the north to Mexico on the south, which has in greater part an annual rainfall of twenty inches or less. It is rapidly being settled by thousands of families from all parts of the country, who are undertaking to cultivate these lands with scarcely any knowledge of dry farming methods.

President Widtsoe's book embodies the best and most reliable information obtainable upon the subject in hand, not only for the man who actually tills the soil, but also the scientific investigator. To quote the author: "It has been written with the needs of the farmer in view primarily." No one knows better than does the writer of this book what these needs are. He is a product of the environment of which he writes; he is a scientific investigator of the highest rank, and a close student of western agriculture, and has done, probably, more than any other man in bringing to light the fundamental truths upon which dry farming is based. He discusses the relation of dry farming to humid farming; its problems, requirements for success, area involved, general climatic features, soils, conservation of moisture, evaporation, summer fallow, tillage, crop adaptation and crop improvement, as well as other phases of the subject. A brief history of the development of dry farming is included.

W. M. J.

THE D. S. GIRLS' VISIT.

Did you notice how Kansas City perked up its head and became interested right away when word went out that the girls from the departments of domestic science and art were coming to town? Notice the friendliness of it? Mrs. Van Zile and Miss Becker never were so certain, perhaps, of the deep regard the public has for a great school that turns out young women

mentally and physically competent to manage their own homes or instruct others how to manage them. From the day the news was sent to Kansas City of the intended invasion from Manhattan the business men of the city besieged both instructors to take their charges to their several places of business.

Now these men of affairs didn't expect to sell anything to the visitors. They knew the girls were going merely to look on and study. Of course there was a chance for a bit of advertising, but wasn't there a rather fine display of good spirit in the offers from Kansas City's business firms to entertain fifty or more girls from the agricultural college! And didn't it prove, too, that those men read the newspapers?

NOW IS THE TIME—

Don't forget for a moment, Mr. Orchardist, that the merry month of March, and most of the other months that follow, are the months for spraying trees. An ounce of Bordeaux or a pail of any other mixture, dry or wet, approved by the men who understand these things, will save you many a dollar now. In all the book of knowledge appertaining to farming and orcharding, nothing is so patent as the necessity of spraying at the right time and in the right way. Don't wait until the early worm has rigged up his summer campaign outfit and has his family ready for the first buds. Put two men at work now spraying, and if you are in doubt about anything write to the agricultural college and you'll be set right.

But whatever you do, don't neglect to spray if you really desire to have a crop of apples and other fruit this year.

FLEECE SELLS AT \$2 A POUND.

The Truth About Angora Goats Shows That They Are Profitable Animals.

The fleece of the Angora goat, known on the market as mohair, will sell at 50 cents to \$2 a pound. The price depends upon the length, fineness, and amount of coarse hair. The average amount of mohair varies from about five to fourteen pounds a head.

The United States has the reputation of producing the best quality of mohair. It is used to make plush carpets, chair seats, braids, curtains, and many articles of women's clothing.

The original home of the Angora goat is in the village of Angora, in Asia Minor.

The Angora goat was introduced into the United States in 1849, when the sultan of Turkey presented nine of his choicest goats to President Polk.

Angora goats will adapt themselves to almost any climatic condition, being found from New Mexico to the New England states. Texas and New Mexico produce the greater amount of the American output, but small flocks are found in many parts of the Mississippi valley.

Goats are long lived and are very prolific breeders at the age of one year. They are natural browsers, and often live off twigs and brush. They will destroy brush and young trees.

The fleece should be pure white, and the staple from ten to twelve inches in length and very dense. As many as 5000 fibers are found on a square inch.

Smooth Roads Clothes.

Smooth roads are like smooth clothes—they are first sprinkled and then ironed. The spring showers do the sprinkling and the farmer with the road drag does the ironing. A mud hole starts with a small depression big enough to hold a pint of water. The wheels cut it a little deeper and wider and longer. It dries up, remains a depression, and awaits the next shower when the process will be repeated.

After continued rains it becomes a mud hole or a quagmire. That shows why the King road drag is so successful in surfacing roads. The King drag can be made with little outlay—a couple of planks or spliced logs, an auger, a few braces, and a chain. To have a hard, durable dirt road, draw the drag over the surface occasionally—especially after a rain, rounding the surface of the road from the ditches toward the center.

Spring.

Softly stepping comes the Spring
Every breeze is whispering
That her Ladyship is coming!
Somewhere near a bee is humming
The glad story—herald, he,
Of the sweet Spring's jubilee.
Just within the woodland's edge,
Just beyond the brightening ledge,
A small windflower cries, "Heigh-ho!
Spring is coming, this I know!"
Flower and grass and breeze and bee
Join the sweet Spring's jubilee.

The Farm Journal.

SUNFLOWERS.

You can practice economy a long, long while and never learn it.

Spring motto for Kansas orchardists: "Spray as you enter."

Anxious Girl.—You are in error; Mr. Roosevelt only drew attention to the Ten Commandments. He did not write them.

Say what you please about the Mormons—and a great deal is being said just now—they certainly are opposed to race suicide.

Will the Kansas City policemen use their rubber clubs on the rubber necks at Eleventh and Walnut and all along Petticoat Lane in the afternoons?

The Washington, D. C., *Herald* has a department headed "Human Nature in Washington." The writer must have a hard time finding his material.

It isn't a bad idea to confer with your neighbors on either side before you plant your flowers. An agreement will prevent a riot of color and give you harmony.

Many American soldiers, it is reported, have been dangerously injured while trying to pronounce Mexican names along the international boundary. Some have been sent home in irons.

"What shall I do for the ants in my kitchen?" inquires an alumnus in Missouri, "they are very thick." What do you desire to do? Do you object to the ants or to their thickness? Answer collect.

Every ton of coal from the penitentiary contains two tons of cinders; four tons of iron ore; 9.73 scuttles of carbon; four heat units; one Hp. of energy, and 8,963,241 words not proper for this paper to quote.

In families that have only one child, says a scientific writer in the *Medical Record*, that one is more likely to be nervous and irritable than when there are brothers and sisters. How about the parents, Mr. Highbrow?

Speaking of *faux pas*, as many papers did, last week, when THE KANSAS INDUSTRIALIST made a little blunder, did you notice the hippy-hop makeup of Comrade Baloskey's column in *The Star*, last Monday?

Banker Walsh, in the Kansas federal prison, is said to be "under a great mental strain." Several hundred depositors in Chicago suffered a bit, too; and they are not so sure as he of getting their three square meals every day.

Now if some one will invent an endless shirt to go with the endless necktie, and some kind of a collapsible nightgown to fit the vest pocket, for use when you are ordered suddenly to leave town, life will resume its grand, sweet song.

Some one in Springfield, Mo., stole a bunch of indictments a few nights ago. They will be found by a negro and advertised within a few days. And some one will howl if the defense gets them, and the state will "investigate" for six or seven months.

If you are really eager to have something copied all over the state, often with credit given, print a piece about advertising—advise everyone to advertise, talk about the value of advertising. It won't take long to show how widely your paper is read.

Antiquarians are said to have been much exercised over the remarkable, old typewriter in the possession of Sam Blythe, of *The Saturday Evening Post*. As usual, Kansas has this beaten. H. T. Chase, of *The Topeka Capital*, has a Remington, made, doubtless, long before the makers numbered their machines—or the numbers have worn off. Any expert can almost equal the speed of a pencil user with Mr. Chase's machine.

LOCAL NOTES.

S. W. McGarrah, assistant in mathematics, told of a trip through the Yosemite, in student assembly Tuesday.

E. L. Holton, professor of rural education, addressed the Saline County Teachers' Association at Salina today.

W. E. Davis, assistant professor of botany, read a paper in student assembly March 15: "Some Similarities of Plants and Animals."

W. S. Gearhart, expert on highway engineering, was at Ellsworth last Saturday. He addressed a meeting at the court-house and explained the advantages of good roads.

Under the direction of William H. Andrews, assistant professor of mathematics, the teachers of subfreshman classes in mathematics are preparing a bibliography of the best works on that subject.

Dr. E. L. Maxey, a law lecturer and author, and professor of law at the University of Nebraska, spent Sunday and Monday in Manhattan as the guest of Prof. E. B. McCormick and Mrs. McCormick. He is a cousin of Mrs. McCormick.

W. H. Andrews, assistant professor of mathematics, was the head of a delegation to Abilene Thursday to attend the Methodist Episcopal Conference. He will try to obtain a part of the Crissman fund for the benefit of Methodist students. This fund is distributed among the several colleges every year.

ALUMNI NOTES.

Mark V. Hester, '94, is on a pleasure trip in California. His home is in Western Kansas.

Guy Noel, '09, was visiting college friends here this week. He has been teaching in the Dickinson county high school.

Mrs. Maude (Harris) Gaston, '08, is visiting her brother, F. C. Harris, assistant in architecture and drawing at the Kansas State Agricultural College. Mrs. Gaston lives in Chicago.

The Kansas City branch of the Alumni Association met March 6 for a social time at the Grund Hotel in Kansas City, Kan. Fifty persons were present. The classes from '79 to '11 were represented. Professor Dickens, Professor Kammeyer, and Miss Wilma Kammeyer attended the meeting.

Mrs. Elizabeth (Edwards) Hartley, '92, of Manhattan, has gone to Wales to spend the summer with her father. A letter from Mrs. Hartley states that she arrived in Liverpool February 22, after a very rough and stormy voyage of seven days. The grass in England and Wales, Mrs. Hartley says, is about six inches high, and the spring flowers are blooming out of doors. The country is as green as Kansas in June. Mrs. Hartley was accompanied by her two small children and her sister, Mrs. J. B. Kimball, of Arcadia, Fla.

TO MAKE GOOD COFFEE.

Have the Pot Really Clean and Then Follow Directions.

To make good coffee, one must have a clean coffee-pot and a good quality of coffee. Rinsing out is not enough to clean the coffee-pot or teapot sufficiently. They can be thoroughly cleaned and freshened by filling them two thirds full of water and then stirring in a teaspoonful of borax and allowing it to boil for twenty minutes or longer.

To make good coffee for two, stir two heaping tablespoonfuls of coffee in one teacup of cold water and let stand over night. In the morning add one pint of cold water; bring to a boiling point slowly, and boil five minutes. To settle, add a couple of spoonfuls of cold water just before serving.

OPEN THE WINDOWS, VENTILATE

Breathe Pure, Crisp Spring Air—Let It Into Your Home.

Do you want your family to be healthy? If so, ventilate. Open the windows and breathe lots of pure, crisp

spring air at night—winter air, too, for that matter. Experiments have shown that persons sleeping in bedrooms having plenty of ventilation are warmer than those sleeping in a close, dead-air room. If the bed cannot be placed so as to avoid sleeping in a direct draft, a window board is easily fixed.

For the downstairs rooms of a farmhouse the best method of ventilation is an open fireplace. No matter how big a fire you may have and how hot the room may get, it will not be a close, suffocating heat. This method of ventilation may be extended to the whole house by having a double chimney, one of heavy tin inside the one of brick. The smoke and gases from the fires may be carried off in this inner tube and fresh air supplied to the bedrooms by removing a brick near the floor in each room and covering the hole with screening of some kind.

ABOUT ROACHES AND ANTS.

Some Methods Which Will Free the Home of These Pests.

Every woman dreads the discovery that roaches or ants are in the house. How can she get them out? Roaches are very wary and cannot be eradicated by poison, as they seldom touch it. Ants are usually very hard to reach, for they build their nests under floors and in the walls.

Here are three ways to destroy roaches, always including vigilance and cleanliness as preventives: poison, fumigation, and trapping.

Poisoning has never been very successful, as the roaches will not eat it. This may be an inheritance from ancestors who have had to guard against the same thing. About the only poison which is at all effective is pyrethrum powder. This temporarily paralyzes the roaches when they get it at night, and they should be swept out in the morning. Most substances advertised as effective are, as a rule, very unsatisfactory, although phosphorus paste is good.

Fumigation is very effective when the room can be made air-tight.

Trapping is the best for destroying this pest. Several types of inexpensive traps give very good results.

There is the French trap, a small box, containing an attractive bait, and four pieces of glass taking the place of a cover and inclined toward the center. The roaches fall from the glasses into the box and are unable to escape. Another trap, commonly used in England and similar to the French trap, is a box with a small, circular hole in the top. This hole is fitted with a piece of glass; the roaches falling in cannot get out, and may be killed with hot water. Traps of this kind are better than poison or fumigation.

There is only one way to get rid of ants permanently. Find their nest or colony by following the workers back to their entrance. If the nest is in the wall, the ants may possibly be reached by injecting bisulphide of carbon or kerosene. If they are under the floor, it may be possible to take up a section. Unless the nest is found and destroyed all other measures will be temporary. Gum camphor will drive the ants away if left in the place infested by them.

GYPSUM AS A FERTILIZER.

Will Change Black Alkali Lands to White Alkali, Which is Less Harmful.

Only a small part of the state of Kansas needs gypsum as a fertilizer. Calcium carbonate, or ordinary limestone, will answer the same fertilizing purposes as gypsum.

On black alkali lands gypsum serves the purpose of changing the black alkali to white alkali, which is a less harmful compound, and it is for this purpose that it has its chief value:

For instance, in black alkali lands the harmful substance is mainly sodium carbonate. When this land is treated with gypsum the sodium carbonate is changed to sodium sulphate, a compound not so harmful to plants.

The other purpose for which gypsum is used as a fertilizer is to sweeten an acid or sour soil. This sweetening is simply the counteraction between the acid of the soil and the gypsum.

TO PRUNE THE ORCHARD.

GET A SHARP KNIFE AND FINE-TOOTHED SAW FOR THE WORK.

Experiments at the Kansas State Agricultural College Show That June Pruning is the Most Successful—Best Method for Various Fruit-Bearing Trees.

Pruning time is dreaded on most farms, because usually it is a task similar to that which the pioneers undertook when they settled in the Ohio forests. If four or five years go by before the orchard is trimmed, it will be an endless work to clear out the brush "heaps" in the tops of the trees, and many of the branches that must be cut out are so large that pruning is injurious.

The ideal tree should have one straight central trunk, with branches radiating from it. No two of the branches should originate at the same part of the trunk.

Get a sharp knife and a fine-toothed saw and use them in pruning the orchard. It has been demonstrated in the orchards at the Kansas State Agricultural College that June pruning is the best. At this time of the year there is the least danger of the thinning out causing sun-scald and water sprouts.

Apple, pear, cherry, and some plum trees bear fruit on short spurs. These spurs are found upon branches over one year old. In pruning these trees, save as many branches as possible that are two years old and over. The peach bears its fruit on the wood of the preceding year's growth; so in pruning a peach tree it is the new branches, rather than the old, that must be saved. In case the fruit buds are killed by severe winter weather or late frosts the peach tree should be cut back. If the tree is young and strong it is well to "dehorn" it; that is, cut off everything except the main branches, leaving only the stubs that are two or three feet long. A less severe pruning in the spring and a thinning out in the summer also is satisfactory.

Cherry trees should be pruned very little, if any. In trimming, make all the cuts as close to the main stem as possible. The wound should be as small as possible.

A good sharp knife is the best pruning tool, but it may be necessary to use a saw for a large limb. Pruning shears are good for grape-vines and hard-wood bushes.

THE COMFORTS OF HOME.

One Man Knows of 500 Farmers Buying Acetylene Lighting Plants.

OTTAWA, KAN., March 12.

The Kansas Industrialist:

I have read with much interest the front page article in your issue of February 18, headed "Light, Heat, Bath, \$865."

Conveniences such as you mention are coming to be considered as necessities rather than luxuries in the better class of farm homes in Kansas. Our experience convinces us that light, heat and bath can be installed in the farmhouses at a very moderate cost, and that they will operate satisfactorily in every way. One firm has sold 500 acetylene gas plants to Kansas farmers.

The acetylene gas lighting plant is now as practical a modern convenience as the heating plant or the bathroom. It gives a pure, white light, easy on the eyes, and affords every convenience of city gas.

The introduction of these improvements into farm homes will undoubtedly do much toward bringing contentment into the rural life of our state.

E. H. BECKER.

QUIZ—WHAT IS IT?

How a Word Originated in a Wager and a Joke.

In the eighteenth century there lived in Dublin a theater manager named Daly. One day he was discussing with some friends the way in which words get their meanings. One of those present declared that it took a long time for a word to acquire a meaning and come into general use. Daly offered to bet that he could coin a word

having no meaning whatever and make it the talk of the town within twenty-four hours.

The wager was accepted. That night Daly had the letters Q-U-I-Z chalked in large characters on all the conspicuous walls and doors of the city. The next day being Sunday, the people were all abroad with nothing to do but wonder about the strange combination of letters that met their eyes on every side. In vain they asked—"quizzed"—one another as to the meaning of the word, for word they took it to be.

After the joke was told people refused to forget the new word; since then it has been used to mean an obscure question. By students it has been extended to mean a series of questions which they usually find more or less difficult to answer.

It has been asserted that the word comes from the word *question*, possibly from Q's (Q. being a common abbreviation for question). The explanation given is, however, generally accepted as the true one. It is certain that the word was not used before the time of Daly, and there is no evidence to show that he did not coin it for the occasion. He sought out the most meaningless combination of letters that he could find; but he overshot the mark, for from that fact the word derived its meaning.

L. H. B.

FOUR MEALS, 8½ CENTS APIECE.

Pork Three Times a Day, With Total Cost Only \$1.

Four people can have pork three times a day for \$1. That means your meals will cost 8½ cents apiece. The domestic science department gives menus for three meals, showing how to keep the cost of living down to this point.

BREAKFAST	
Stewed Dried Peaches	
Breakfast Bacon	Buttered Toast
DINNER	
Clear Tomato Soup	CROUTONS
Broiled Ham	Mashed Potatoes
Bread	Lettuce Salad
Coffee	Butter
SUPPER	
Ham Soufflé	Escalloped Tomatoes
Muffins	Butter
Tea	Apple Sauce

ICE SUPPLY FOR THE FARMERS.

Stream or Pond Not Necessary, As Ice Can Be Frozen in a Tank.

Farmers can have a supply of ice just the same as those who live in the town or city. It isn't even necessary to have a stream or pond from which to get the supply, for a tank can be arranged which will hold enough water to make a 300-pound cake of ice.

In very cold weather such a tank filled with water, and held up in the air by a platform, would freeze the water into solid block of ice in one night. Ice houses may be constructed at a small actual expense where farmers coöperate in the building, the final estimate being that ice put up would cost only \$12 to \$15 a season.

Men can be hired to load the ice at 50 cents a load, and a good packer, furnished with a helper, can be employed for \$2.50 a day. This plan is generally satisfactory, and especially where the ice is obtained naturally from streams, lakes, or ponds.

Fencing on the Farm.

Will it pay to fence farms off in fields? Fencing may be done on a small farm satisfactorily, if there is a good system of crop rotation, but it will not pay otherwise. Fences around the farm keep the stock at home. The cost is comparatively small. Fencing the farm off in fields is more expensive. The main objection to fencing fields is the waste land along the fence. Observations in Eastern Kansas have shown that timber growing along the side of the fence next to corn has produced one ton to the acre. One good point in favor of fencing is that a person can grow more feed and more stock.

TO ELECTRIFY THE CROPS

HOW BIG RETURNS MAY BE GAINED BY USING NEW METHODS.

Electric Light Experiments Have Worked Successfully With Vegetables—Charge the Air or Ground by the Use of a Very Strong Current.

You have heard of electricity? Sure. Ben Franklin coaxed it down from the clouds with a kite, and it is used for lighting purposes, to run machinery, to electrocute criminals, and to do many other things, as the sale bills say, "too numerous to mention." But did you know that it could be used to make your crops grow and to increase the yield of your acres? It's a fact.

One way this is done is by means of electric light. Many experiments have been made with the light, chiefly on vegetables, and they showed that if the light was not too close, or was screened in, the vegetables usually grew faster and larger than those without the light.

Another way is to charge the air or ground with electricity by use of a current. The growth of many vegetables, also wheat, barley and potatoes, has been increased remarkably in this way. In England in an experiment on wheat during the years 1906, 1907, 1908 and 1909, electricity increased the yield from twenty-three to thirty-nine per cent. The electricity was applied by means of a network of wires about fifteen feet above the field. Poles are set in rows 100 yards apart and 70 yards apart in the rows. On these poles are put thick telegraph wires. Finer wires are run ten yards apart between the rows. The current is turned on and the wheat grows.

The price of the engine, dynamo and wires to cover thirty acres is \$1500, or about \$50 an acre. Of course, no one is going to pay \$50 an acre for the chance of getting five or ten bushels of wheat more to the acre, but there is a chance of electricity coming into practical use in the growing of crops.

CHICKENS LIMPING NOWADAYS?

What to do When Rheumatism Becomes Evident Among Your Poultry.

Have you noticed a spasmodic jerking of the legs, or lameness in your poultry? These signs indicate that your poultry house is damp and cold or badly ventilated, and it should have your immediate attention.

Rheumatism usually affects the feet and the joints below the knee. The disease becomes chronic, and the old birds have it in a more advanced stage. The affected birds may live a long time, even after the disease is far advanced. They lose flesh and their feathers become roughened and dull. As rheumatism usually is caused by exposure to cold and dampness, the appearance of the disease should be a warning to improve the ventilation and drainage of the chicken-house.

Chickens that show signs of rheumatism should have frequent changes in rations and plenty of green feed. Begin the internal treatment for the disease with a dose of Epsom salts, 20 to 30 grains. The next day add 30 to 40 grains of common baking-soda to every quart of drinking water, and give two or three grains of salicylic acid twice a day. Either camphorated or carbolic ointment makes a good external treatment.

It does not pay to treat the more seriously affected chickens. They should be killed. The poultry breeder must rely upon prevention rather than cure. He must provide dry and sanitary houses if his chickens are to remain healthy.

Why Not a Few Gourds?

Gourds are annual plants with tendrils, broad leaves, and large, yellow flowers. The more common, American gourds are rampant climbing vines, and are very useful as a cover for unsightly places. They are grown chiefly as curiosities. Seeds should be sown in April in a rich, deeply dug soil, where they may have an abundance of moisture. They are easy to cultivate, requiring about the same treatment as the squash.

BIG FUTURE IN HOGS.

BREEDING OF SWINE IS A VERY PROFITABLE PART OF THE FARM.

Some Statistics Show That From 21,652 Litters, Average Number of Pigs Farrowed was 9.26—Good Breeding Sow Should Yield Twice a Year.

The possibilities of the hog business, viewed from the increase in numbers to be expected, are shown in this compilation:

From figures compiled from the Duroc-Jersey herd book of 1906, by G. M. Rommel, it was found that from 21,652 litters the average number of pigs farrowed was 9.26.

G. S. Christy, of the Kansas State Agricultural College, in his thesis on Duroc-Jersey Prepotency found that in one lot of 19 litters the average number of pigs farrowed was 9.8, of which 7.8 were raised.

In a second lot of 16 litters the average number of pigs farrowed was 11.2, of which 8.8 were raised.

AVERAGE NUMBER FARROWED.

In a third lot of 13 litters the average number farrowed was 11.2, of which 7.8 were raised.

In the fifth lot of 15 litters the average number farrowed was 12.5, and of these an average of 8.5 were raised.

Thus, in a total of 63 litters an average of 10.9 pigs were farrowed and an average of 8.15 raised.

In the book entitled "Youatt and Martin on the Hog," it is said that for getting the highest profit from hogs "the sows should yield twice a year." It is also said that "a good breeding sow will produce two if not three litters in a year, but two should be the outside number."

In speaking of a certain sow, Youatt and Martin say that "for about ten years this prolific mother produced two litters in the year, of about ten at a time, and once above twenty in a litter."

ONE MAN'S EXPERIENCE.

In the Ohio Agricultural Report of 1890, O. B. Young says: "I had 12 head of fine Poland-China hogs, eleven months old, that had been running on clover pasture all summer and were in fine condition for feeding. They averaged 120 pounds. I fed them in a clover lot of five acres, and in six weeks from time of beginning they were sold, having gained 100 pounds. After summing up, I found it had taken three bushels of corn, worth \$1.80, and 125 pounds of middlings, worth \$1, to make 100 pounds of pork. This made the total cost of 100 pounds amount to \$2.80 outside of pasture."

In his thesis on "The Effect of Feed on Hogs," C. H. Alspaugh says: "It is said that pork can be grown on alfalfa for one cent a pound." If this is so, it would mean \$2 for a 200-pound hog, or \$4 for a 400-pound hog.

Arthur Young, a well-known agriculturist, says: "The breeding of swine being one of the most profitable departments in the whole business of a farm, the husbandman can not pay too much attention to it."

ALFALFA'S DROUGHT RESISTANCE.

Subject of One of Two Excellent Papers Read Before the Science Club.

Two very excellent papers were read before the Science Club, Monday night, March 6. A. A. Potter discussed "Economy of Internal Combustion Engines with Different Liquid Fuels."

He showed that in an engine designed for gasoline, kerosene could be used as a much cheaper fuel, since it will produce one horse-power for one hour at a cost of from one half to three fourths of a cent. Prof. Potter assumed the cost of kerosene at seven cents a gallon. At thirteen cents a gallon, gasoline will produce the same power at a cost of from one and one half cents to two cents per hour. Gasoline is the more popular fuel, however, because of the difficulty of starting with kerosene, and a change of fuels is naturally inconvenient. Assuming the price of denatured alcohol at thirty cents a gallon, one horse-power for an hour will cost, with the use of this fuel, from three and one

half to seven and one half cents. Prof. Potter believes that, when the government regulations for the manufacture of denatured alcohol have been more fairly adjusted, this cost can be greatly reduced. With still cheaper petroleum fuels and in large and especially designed internal combustion engine units, a horse power can be produced for about one fourth of a cent per hour.

The paper of H. F. Roberts, on "Quantitative Determination of Drought Resistance in Alfalfa," was mainly concerned with the report of an experiment along this line, which Prof. Roberts has not as yet completed. He comes to the conclusion, however, that the broad-leaved plant requires more moisture than does the narrow-leaved variety.

GET THE BOYS READY.

Circulars Describing All the Rules of Corn Contest Now in Printer's Hands.

How many boys intend to get into the corn contest this year? Five thousand? That was the record in 1910; why not surpass it?

The circulars describing all the rules of the contest are in the printer's hands. Superintendent Miller will have them distributed as soon as possible. These circulars will answer every question. This is only a notice to stir up the boys and get them after their corn.

The contests for 1911 will be under the general direction of the county farmers' institute organizations, except where local institutes choose to conduct contests. The executive committees of the institutes should meet soon and decide upon varieties of corn to plant; where they shall get the seed—the extension department at the college has no seed-corn to sell—how and when it shall be distributed; what other contests they desire to undertake; and also to appoint proper committees for special work. Last year's experience made it clear that the county superintendent of schools

should, in most cases, be asked to take charge of the corn contest membership, and, if that officer is willing, to attend to the correspondence and receive names for all other contests that will be brought before the annual institute.

There will be three classes this year. Class B will be open to boys from 10 to 15 years old, whether they have been in the contest heretofore or not. Every boy should plant a measured acre of good seed-corn and be pledged to exhibit ten ears at the county institute next fall, the winners to receive cash or merchandise prizes.

Class A will be open to boys from 15 to 21 years old, whether in the contest last year or not. Every boy should plant one acre of good seed-corn of his own growing or elsewhere, and be pledged to exhibit ten ears next fall at the county institute. It is recommended that this class be given as prizes free trips to the state institute.

The "Special" class boys are those who have attended, at any time, a state institute or other corn-judging school. These boys are to follow all regulations prescribed for Class A, but competing only against boys who have had some drill in corn judging. One or more prize winners from this class should be sent to the state institute.

Another big feature suggested by Superintendent Miller this year is a yield contest. Full particulars of this will be sent out in a day or two through local papers.

The extension department suggests four sets of prizes this year, that every county determine promptly the number of prizes to be given and the amount of money to be provided for class B, and then to make plans to send as many as possible of the winners in Class A to the state institute. Superintendent Miller likes the idea of letting interested and public-spirited men send a boy. It creates a closer interest, makes the givers and boys partners, in a sense, in future corn growing.

Turning sharp-shod horses into the barn-yard with other stock is apt to be costly business.—*Minnesota Farm Review*.

HOW TO FORCE RHUBARB

A. J. NICHOLSON, OF MANHATTAN, GREW FOUR TONS ON 100 FEET.

The Manner in Which the Forcing Houses Are Built—The Profit That Can Be Made From Selling Rhubarb, If Handled Properly.

More than four tons of rhubarb were grown two years ago by A. J. Nicholson, of Manhattan, before the frost had left the ground. He sold it at 6½ cents to 8 cents a pound. It was produced on a space less than 100 feet square.

This rhubarb was grown by a method which truck farmers call "forcing," and must be done in a warm, dark place. A cellar might be used for a small amount. To produce rhubarb for commercial purposes it is necessary to build a forcing house. Mr. Nicholson grows his crop in three such houses, that cost less than \$50 apiece.

HOW TO MAKE FORCING HOUSES.

A forcing bed is made by digging into the ground about four feet, and then filling in with manure. Cover this with six or eight inches of rich soil. The top of the bed should be nearly a foot below the ground and a roof-like frame placed over it, covered with building paper, or some other cheap material. On top of this is piled manure eight or ten inches deep. A box stove is placed in one end of the house, with a pipe running the full length of the structure, so as to divide the heat evenly.

Four weeks before the crop should mature start a slow fire. The crop may be brought on as desired by having two or more houses and starting the fire in one house and a little later starting it in the next. Care should be taken not to have too much rhubarb maturing at once. It might not find a good market, and again you might not be able to handle it.

PLANTS MUST FREEZE.

The roots are placed in the forcing bed in the fall. They should be allowed to freeze before starting to force them. Every plant must have a resting period. New roots must be set out every year to take the place of those put in the forcing beds. The roots used in the forcing beds are of no further value, either in the forcing bed or when transplanted. Three or four cuttings may be obtained from them while in the forcing house. The stalks of the last cutting may be too small.

The roots must be grown from cuttings. Sufficient rhubarb may be sold from the growing roots during the season to pay for their care and the land they occupy. Rhubarb grown in a forcing house is of the finest quality. It contains very little acid, has a fine flavor, and is very tender. It brings the highest price for these reasons and considering the season in which it is marketed.

Very little energy is lost from the roots in producing the leaves. The stalks grow long and have leaves that are smaller than a man's hand. It is essential to keep the house dark in order to produce these small leaves. Mr. Nicholson has been growing rhubarb for the last six years, and has a good crop this year.

ONLY FUEL VALUE IN CORN COBS.

Fertilizing Elements Worth Less Than \$1 a Ton at Present Market Price.

Corn cobs are more valuable as fuel than they are when used in any other way.

As a fuel, they have about one third the value of good, hard wood or hard coal. By the wagon-load, they cost \$2 to \$2.50. For pipes they are useless here, because the only cobs used in that way must be grown near the factory.

At the present market price, the fertilizing elements in corn cobs are worth less than a dollar a ton. Used as a fertilizer, it takes a long time to get nitrogen, phosphoric acid, and potassium—necessary elements—into the soil.

About the only food value corn cobs have is to divide and lighten corn-meal when fed with it, thus allowing the penetration of the digestive juices.

A SUMMER SCHOOL at the Agricultural College For the Teachers

Spring Term begins March 28 and ends June 14.
Summer Term begins June 15 and ends July 27.

Agriculture, Manual Training, and Home Economics

About one-half of the country school-teachers of Kansas will close their terms of school before the opening of the spring term of the agricultural college, March 28. The college, therefore, suggests to these teachers the advisability of the investment of money and time for both the spring and summer terms, giving principal attention to the vocational subjects.

The Courses Offered:

Spring Term:

Home Economics: Domestic Science; Sewing; Dress-making; Home Decoration.

Drawing: Free-hand; Geometrical; Object; Perspective; Water-color and Design.

Manual Training: Two courses in Woodwork; two courses in Blacksmithing; Mechanical Drawing.

Agriculture: Elementary Agriculture; Live Stock; Farm Crops; Stock Judging; Grain Judging; Poultry; Plant Propagation; Small Fruits; Market Gardening; Landscape Gardening.

Education: Methods of Study; Methods of Teaching; School Management; Industrial Education.

The Spring Farm Work

Teachers who enter for the spring term will have an opportunity to observe much of the experimental work conducted at the agricultural college.

The summer term does not differ materially from the courses preceding it. The course in elementary agriculture will be offered during the summer session primarily for teachers who expect to teach this subject in country schools or village schools, and especial attention will be given to methods of teaching elementary agriculture in the rural school or in the grades in the village, with suggestions for laboratory work. Those who have time to take two or more of the other subjects named above will not need to take this course in elementary agriculture.

Expenses

The only fee charged by the college will be the regular incidental fee of \$3.00, which the state law requires to be charged of all students who are citizens of Kansas. Nonresident students will be charged a fee of \$20.00 for the first term and \$10.00 for each term thereafter. Board and room may be had for from \$4.00 to \$5.00 per week.

For further information address

H. J. Waters, President

Manhattan, Kansas

TO BETTER SWEET CORN.

PAY MORE ATTENTION TO SEED AND GET BETTER CANNED CORN.

Few Farmers Produce Their Own Seed or They Lose the Variety. Some Suggestions for Improving the Standard and Keeping the Variety.

If a little more time was used in the breeding of sweet corn, canned corn would taste much better.

This type of maize is seldom given time to become acclimated. Few farmers produce their own seed, or if they do, they probably lose the variety before long in some way. Rats may have found next year's bag of seed, or the children may have parched it; any way, it is lost.

Where there is a canning factory in a neighborhood, a little advertising money could not be spent better than in developing a good variety of sweet corn. The seed should be furnished free to the growers. This way of improving the standard of the corn will work out in any locality if the right variety is found.

Try it. Tell others about it. When you find a good variety, don't call it sweet corn; give it its proper name, as you do varieties of other types of maize. Sell it to your home merchant, so he will not have to send

away for seed. This other seed might not be adapted to the change of climate.

DO FARMERS PLANT GOOD SEED?

Germination and Amount of Harmful Weed Seed Must Be Considered.

Do farmers plant good seed? Good commercial seed should be of the kind and variety desired, reasonably pure. It must be free from foreign matter, be capable of germinating well, and of growing vigorously.

All grass, clover and alfalfa seed should be purchased from reliable seed houses or reputable seed dealers. The purchaser should be sure of variety, as there are many adulterations on the market; for instance, Canada-blue-grass being sold for Kentucky blue-grass.

A farmer should have a sample tested by an agronomist.

All seed should be free from chaff, sticks, pebbles, and weed seed. A very small amount of foreign matter will greatly affect the weight of the seed.

The two most important things to consider in buying seed are the germinating qualities and the amount of harmful weed seed. Buyers are apt to judge the quality, germination, and growth by color and appearance. This is fairly reliable, but only actual germination tests are certain.

THE KANSAS INDUSTRIALIST

Volume 37

Kansas State Agricultural College, Manhattan, Saturday, March 25, 1911

Number 25

TIME TO TALK OF CORN.

BOYS IN EVERY COUNTY ARE GETTING READY FOR THE CONTESTS.

Yield Trials and Five-Acre Classes With Money Inducements are to be Special Features This Year—The Details Arranged.

In every county, boys are thinking of the annual corn contests. The authorities of the state agricultural college are thinking of the same thing. J. H. Miller, superintendent of the extension department and the farmers' institutes, has a circular in the printer's hands describing the whole proposition. He hopes to get this into every county in time to answer all questions.

There will be three classes this year. Class B will be open to boys from 10 to 15 years old, whether they have been in the contest heretofore or not. Class A will be open to boys from 15 to 21 years old, whether in the contest last year or not. Every boy should plant one acre of good seed-corn of his own growing, or from elsewhere, and be pledged to exhibit ten ears next fall at the county institute. It is recommended that this class receive as prizes free trips to the state institute. The "special class" will include boys who have attended, at any time, a state institute or other corn-judging school. These boys are to follow all regulations prescribed for Class A. One or more prize winners from this class should be sent to the state institute. The complete directions and description of requirements for all classes will be found in the circular soon to be issued.

YIELD CONTESTS, TOO.

The college recommends some yield contests for the boys this year. For territory east of the sixth principal meridian the minimum yield to enable a boy to enter the contest will be seventy-five bushels; for the next three counties west the minimum yield will be sixty bushels, and for the remainder of the state, forty-five bushels. All boys able to meet this minimum yield will be put on an "Honor Roll." Prizes are to depend on the county committee.

To interest boys between 17 and 22 in growing large yields of corn it will be recommended that county committees open a "Five-Acre Contest." It is recommended that the young man who has the highest yield in a five-acre contest be given a cash prize of \$50, to be used towards paying his expenses for ten weeks in the farmers' short course at the Kansas agricultural college next winter.

BETTER MEET SOON.

The contests for 1911 will be under the general direction of the county farmers' institute organizations, except where local institutes choose to conduct contests. The executive committees of the institutes should meet very soon and decide upon varieties of corn to plant; where they shall get the seed—the extension department at the college has no seed-corn to sell—and how and when it shall be distributed; what other contests they desire to undertake; and also to appoint proper committees for special work. The county superintendent of schools should, in most cases, be asked to take charge of the corn-contest membership.

The corn contests, as usual, will culminate at the county farmers' institute meetings between October 15 and December 20. The extension department can not recognize contests held at any other time or place. The contest will be for the best ten ears, regardless of variety or color. It is also a good idea to have a yield contest for Class A and for the special class.

Boys' Corn-Contest Notes.

The extension department suggests four sets of prizes this year; that every county determine promptly the number of prizes to be given and the amount of money to be provided for Class B, and then to make plans to send as many as possible of the winners in Class A to the state institute. Superintendent Miller likes the idea of letting interested and public-spirited men send a boy. It creates a closer interest, makes the givers and the boys partners, in a sense, in future corn growing.

A CHANCE FOR TEACHERS.

The Summer School at the College, and the New Law.

The legislature has just passed a law requiring all grade and rural school-teachers to pass an examination in the elements of agriculture. This law will take effect June 1, 1911.

What do you intend to do?

Why not come to the summer school, at the agricultural college, and get your agriculture right?

The spring term begins next Tuesday, March 28, and ends June 14. The summer term will be June 15 to July 27.

The agricultural college is authorized, by act of congress, to expend, every year, a part of the congressional appropriation for "providing courses for the special preparation of instructors for teaching the elements of agriculture and mechanic arts." The college, therefore, places the facilities of the institution at the disposal of the teachers of Kansas, and will coöperate with them in every way possible to enable them successfully to introduce these subjects into their schools.

Remember the opening date—March 28.

Read the announcement on page 4.

CONTEST BROKE RECORDS.

The Names of the Men Who Scored 90 Per Cent or More.

The first bi-monthly butter-scoring contest for 1911, held recently in the Dairy building, was the largest that has ever taken place at this institution. There were fifteen entries, which means that twenty per cent of the butter makers of Kansas took part. More entries than this are expected for the May contest.

The butter was scored by F. L. Odell, who is a government dairy expert, one of the most noted butter judges in the United States. The butter, on an average, was better than that of the previous contests. Mr. Odell commented very favorably on the workmanship as a whole and said that the thing the Kansas butter makers have to work for is to teach the Kansas farmers to improve the quality of their cream. Here are the men who had a score of 90 per cent or more:

Butter maker, John Stewart Creamery Company, Clyde, 93 per cent.

J. A. Beckman, Merritt-Schweier Creamery Company, Great Bend, 92 per cent.

N. O. Nelson, Continental Creamery Company, Topeka, 92 per cent.

George Steffenson, Deer Creek Company, Atchison, 91 per cent.

Butter maker, Acme Creamery Association, Abilene, 91 per cent.

A. A. Oswalt, Jenson Creamery Company, Junction City, 90 per cent.

H. J. Binner, Hutchinson, 90 per cent.

The butter was held at the college six days and then shipped to Chicago, where it was rescored by J. C. Joslyn, federal market inspector, who is considered one of the foremost judges of butter.

Grape Grafting Successful.

Grape grafting can be done successfully by using any of the various methods. The whip and cleft grafts are best. The whip graft is used generally in grafting roots on small plants in order to add strength. The cleft may be used either above or below the surface of the ground.

WHAT ONE BOY LEARNED

A SHORT-COURSE STUDENT WRITES OF EFFECT OF HIS COLLEGE WORK.

He Has Discovered There Is Something to Learn, that "Dad's Way" Isn't Necessarily the Best—Will Build Light Plant at Home.

To The Kansas Industrialist:

It won't be long now before I quit school and go back to the farm for good. I have been a short-course student, but I am long on gratitude, and so I thought that, before I got my last Manhattan hair-cut, I would tell you just what the agricultural college has done for me.

I am rather glad to think that I'm going home. I am beginning to get a little lonely. I used to think that what dad didn't know wasn't worth learning. Now, when I go home, we're going to have a silo, and I'm going to keep up on agricultural literature. I see now what a bulletin's good for. I also intend to carry home a few textbooks and to continue my studying. This school has started me on the right track and I intend to keep going.

HE WILL KEEP BOOKS.

We're going to keep an accurate system of farm accounts, too. I can understand, now, just why we have been so confounded poor. None of us knew anything about system; and the funny part of it was that we didn't know there was anything to learn. I am beginning to see that a lot of the drudgery and hard work of the farm was due to not knowing the right way of doing things.

Another thing I've been thinking about: Our home is rather a dismal sort of a place. I never realized it before. A while back THE KANSAS INDUSTRIALIST printed an article on running a lighting plant from a small dynamo. We've got a windmill on the place and plenty of breeze. Maybe I can rig up a plant that will do the work. At any rate, I intend to liven up the house a bit. When a man has to live in one place the rest of his natural life, he might as well fix things up as convenient as possible. Somehow, I never thought of this before, either.

AND HIS SON—.

We have never done much reading at home; I guess we never had the time to spare. I don't know exactly why, but lately I've begun to think that it'll pay to give a little time occasionally to some good books, outside of the patent-medicine almanacs we get. If you think this will be all right, what books ought I to get?

I wanted to tell you what I have learned here, but I can't quite seem to get it into words. I guess, after all, that the most good I have gotten is that I know that I don't know much about anything, but that there are lots of ways of finding out. If I ever have a son of my own, he's going to be a student in the Kansas State Agricultural College—and not a short-course student, either; I will have more money some day than my dad's got, for I think I have begun to learn just how to make it.

(Signed) A. G. G.

NOW, AS TO HENS' TEETH.

A FEW CHEERFUL WORDS WITH RESPECT TO NATURE FAKE.

"Your composition, as a whole," said the professor of literature, "deserves a great deal of praise, but I must object to the expression, 'as fine as hens' teeth'; it is not merely uncouth, but also suggestive of nature faking, for it is common knowledge that hens' teeth do not exist."

"I do not see why they don't exist," muttered the composer. "Don't combs have teeth, and don't hens have combs?"—Chicago News.

Barley is Fine Stock Food.

Why don't the farmers of Kansas raise more barley? Experience in scientific feeding has proved that it is an excellent food for stock. The amount of digestible protein in barley is greater than in corn. The Pueblo Indians in New Mexico grow a certain kind of barley that is excellent for bread making. Barley should do well in Western Kansas. It is a good food for dairy cows when mixed with oats in the proportion of one part barley to two of oats.

HELP IN POULTRY CHOLERA.

IMPORTANT EXPERIMENTS WITH SERUM DEPEND UPON LIVE MATERIAL.

Can poultry cholera be prevented by injecting serum into the diseased fowls? The serum method of treatment prevents cholera in hogs, and if the case is in its first stages, will cure it. But will serum work equally well in combating the disease when contracted by fowls? This is what F. S. Jacoby, of the poultry department, and W. K. Stouder, of the veterinary department of the Kansas State Agricultural College, are eager to know. Of course they will use a different kind of serum, suited to the differences between cholera in hogs and in poultry.

Inability to get diseased fowls to operate upon is retarding the progress of experiments now being conducted to investigate this question. Mr. Jacoby and Dr. Stouder wish to communicate with owners of flocks where the disease has started. The only fowls received up to the present died in transit. Few fowls live more than three days after contracting the disease. If they are not started to the college in the early stages of the disease they are likely to arrive in a worthless condition for the experiment.

CREDIT TO ASSOCIATIONS.

THE PRESENT HIGH CLASS OF FARM POULTRY DEPEND LARGELY ON ORGANIZATIONS.

Credit for the present high class of farm poultry is due largely to the work of poultry associations.

The poultry shows and county fairs help to show the farmers some of the things to be desired in good stock and keep the farmers interested by turning their attention to pure-bred poultry occasionally. The fancy breeder furnishes breeding stock for the farmer, so that although he may not enter his poultry in the show, he has the satisfaction of knowing he is raising something more than scrubs. Without the poultry associations and their shows, interest in good poultry would soon be lost and farm poultry would drop to a lower standard.

The fixing of standards of perfection—that is, determining what points are desired for a perfect fowl—for the breeds of poultry is due to the American Poultry Association. Every five years this association publishes a book, *The American Standard of Perfection*, which defines what the proper markings, size, and shape of every breed should be. It helps all poultry breeders by fixing a standard that they may try to reach.

WILL DRILL FOUR DAYS A WEEK.

The cadet corps will drill four days a week next term. The schedule as arranged by Captain Boice is: Tuesdays, guard and company drill; Wednesdays, battalion drill; Thursdays, regimental parade; Fridays, drills as prescribed by the commandant. The members of the recruit company will be distributed among the regular companies.

THE Y. W. C. A. OFFICERS.

The officers of the Y. W. C. A. for the next year are: Miss Mildred Inskip, president; Stella Manley, vice-president; Murrel Sweet, secretary, Mabel Broberg, treasurer.

HAVE YOU EATEN LACTO?

A "NEAR ICE-CREAM" IS NOW PRODUCED IN THE COLLEGE DAIRY.

Loppered, Skimmed Milk Plays the Most Important Part in the Recipe—One Advantage is That it Can be Made at Home.

Lacto—did you ever eat it?

Lacto is "near ice-cream." It is a new product made by the dairy department of the Kansas State Agricultural College, but it can be made at home very easily. Lacto has the advantage of not only resembling ice-cream and tasting like other frozen dishes, but it is much cheaper to prepare. Loppered skimmed milk plays the most important part in the making of lacto, with eggs, sweetening, and flavoring as the other ingredients.

HOW IT'S MADE.

Here is the way lacto is made at the college dairy: Commercial lactic acid is added to pasteurized skimmed milk. This stands at 20 degrees C. until it coagulates. When this batch has coagulated another quantity of skimmed milk is added, but a part of the thickened milk is added instead of the commercial culture. This process is repeated until the final batch has lost the flavor of the commercial culture. This last quantity of skimmed milk is then added to a large amount of pasteurized milk until enough has been obtained with which to work. This is the scientific recipe for lacto as made at the college, but it can be prepared at home in small quantities.

"ALL KINDS AND ALL FLAVORS."

Let a bottle of fresh milk stand until the milk is coagulated. If the curd is smooth and solid, it can be added to a larger amount of skimmed milk as a starter to sour it. Then it is ready for freezing. For grape lacto take 3 gallons, lacto milk, 9 pounds sugar, 12 eggs, 1 quart of grape juice, 1½ pints lemon juice. Dissolve the sugar in the lacto milk, beat the whites and yolks of the eggs separately and add to the milk. Stir and strain, and then add the fruit juice. Should the fruit juices settle the casein, they may be added when the mixture has been frozen.

The flavoring for lacto may be suited to the individual taste. Lacto is said to be rich in protein and is therefore healthful in addition to being delicious to eat.

HORSERADISH—GROW IT.

CAN BE USED SUCCESSFULLY IN CROP ROTATION WITH CABBAGE OR BEETS.

Horseradish is generally in demand, why not grow it? It rotates well with cabbage or beets and increases the income from the ground. The cost of growing horseradish alone is about \$40 an acre. An acre produces from two to four tons of roots, which sell for \$10 to \$50 a ton.

Horseradish is propagated easily by root cuttings. These are four to seven inches long and the size of a pencil. The roots are dropped top end up in holes or furrows in the cabbage rows. The top of the cuttings should be from three to five inches below the surface of the ground. This deep planting delays the growth of the tops until after the tillage of the first crop. If the tops grow so much that they bother, they may be cut off two or three times early in the season without injury.

Plow the roots out late in the fall. Store them in pits or in the cellar, or sell them. It is necessary to destroy all small roots, as they will grow the next season and be a nuisance.

Very deep, cool, rich soil is best suited to horseradish. On account of the extreme hardness of the plant, it grows well on a wide range of soil. Heavy clay soil is least adapted to its growth.

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Issued weekly during the college year by the Kansas State Agricultural College, Manhattan, Kansas.

PRES. H. J. WATERS Editor-in-chief
PROF. C. J. DILLON Managing Editor
DR. J. D. WALTERS Local Editor

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DOLLAR FOR DOLLAR.

The people of Kansas have refunded their educational investment in the agricultural college by giving it a liberal appropriation. This vote of confidence the people expressed through their representatives in the legislature. Had the people been opposed to the investment, it would hardly have been made. It was made, and with the money the college intends to do work that will prove the people's wisdom. This work will show in increased yields from the farms, higher standards of living, improved agriculture, better live stock—better educated boys and girls—the biggest dividends that any investment in the world can return.

"We must make every dollar return a dollar to the people," was the way in which President Waters closed an informal chapel talk to the students, a few mornings ago, in telling of the appropriations for the next two years. "Dollar for dollar and something more. It rests with us; it's our highest duty."

It is pleasant now to reflect that every man in the legislature who personally investigated the work of the agricultural college, and its needs, proved by his vote that he realized the importance and value of the work done there; and a large number of the members of both houses did give the matter personal attention. They believed, as did a majority of the legislators, that Kansas must accustom itself to big things; that the people must realize that the state is a leader; that it has progressed marvelously in every way in ten years, and in no way more remarkably than in its educational standards and its school and college attendance. Kansas must learn to think in millions if it is to act and accomplish things upon a large scale. The liberality of the legislature, referred to in a complimentary way by the President in his chapel talk, showed that this lesson is being learned. It showed, too, that it was necessary only to convince the ways and means committee that the college estimates were upon a minimum basis, as closely drawn as possible without injuring the efficiency of any department.

Now, it is the duty of these departments, and the intention of every one, to do exactly as the President declared they should do: To return to the people dollar for dollar and more.

AS TO PATENT INSIDES.

It's a safe conclusion, isn't it, that every editor in Kansas favors advertising? He believes in the value of his paper—the goods he sells; he believes in his town and his country and state. Very well. Now, Mr. Editor, if you put your trust in Kansas—and that means in agriculture—why do nine-tenths of you print, in your patent insides, long and glowing advertisements for the Canadian Northwest as a wheat country—which it is? Why don't you publish more good stuff about the agriculture of your own state? You are paying for a patent inside—why not have Kansas farming set in these pages instead of that from Manitoba or New Jersey, or top-heavy articles on the growing of mahogany in South America? Are you trying to colonize those districts? Got some knock on Things As They Are?

Think it over. Perhaps you

haven't given this subject any thought. You may not have been reading your boiler plate lately, and if you haven't, this little screed will serve the purpose of calling your attention to the fact that it's not Kansas plate. No excuse for it, either, not a bit. You might just as well spend your money for a few columns of plate that carries Kansas farm stories; you can get a whole page of it, six columns, prepared in the publicity department of the agricultural college every Friday, with particular reference to the needs of Kansas papers.

These columns are not made up of stories advertising the college. They are interesting, readable descriptions of experiments, crop advice, timely pointers for every department of farm work, with pictures that are new, made the week previously for the exclusive use of this agricultural page. Why not use that kind of boiler plate? What do Kansas farmers care about ostrich breeding or the growing of mahogany or the money to be made in the South Sea Island guano trade? J. C. Calvin, of the Western Newspaper Union, in Kansas City, is printing this page for the college. The stories it contains are short and to the point. They are from two to five months ahead of any bulletin the state printer can turn out, because his shop is piled up with work. But remember also, that if you need a story on some particular farm subject you can get it by writing to the publicity department of the agricultural college, and get it within a very few days. Let's get together.

HUMANITY'S "YELLOW DODDERS."
It comes to me as the wonder of wonders, these spring days, how surely everything, spiritual as well as material, proceeds out of the earth, says David Grayson, in *Country Life In America*. I have times of sheer paganism, when I could bow and touch my face to the warm, bare soil. We are so often ashamed of the earth—the soil of it, the sweat of it, the good, common coarseness of it. To us, in our fine raiment and soft manners, it seems indelicate. Instead of seeking that association with the earth which is the renewal of life, we devise ourselves distant palaces and seek strange pleasures.

How often and sadly we repeat the life story of the yellow dodder of the moist lanes of my lower farm. It springs up fresh and clear from the earth itself, and spreads its clinging, ivy stems over the hospitable wild balsam and goldenrod. In a week's time, having reached the warm sunshine of the upper air, it forgets its humble beginnings. Its roots wither swiftly and die out, but the sickly yellow stems continue to flourish and spread, drawing their nourishment not from the soil itself, but by strangling and sucking the life juices of the hosts on which it feeds.

Men and women there are—the pity of it—who, eating plentifully, have never themselves taken a mouthful from the earth. They have never known a moment's real life of their own. Lying up to the sun in warmth and comfort—but leafless—they do not think of the hosts under them, smothered, strangled, starved. They take nothing at first hand. They experience described emotion, and think prepared thoughts. They live not in life, but in printed reports of life. They gather the odor of odors, not the odor itself; they do not hear, they overhear. A poor, sad, second-rate existence!

Bring out your social remedies! They will fail, they will fail, every one, until each man has his feet somewhere upon the soil!

A SCHOOL FOR WAITERS.

After all, there is nothing so very remarkable in the fact that London is to have a School for Waiters. For many years some of the best servants—in the full meaning of that American word—have come from England. Stolid, mechanical, punctual, silent, and usually immaculate, these graven-faced domestics have filled many trying positions when the native "hired help" would have gone away in a huff. By all means, the idea should be encouraged across the At-

A Golden Text.

Train up a child in the way he should go, and when he is old he will not depart from it.—Proverbs 22:6.

Iantic, especially as no such institution ever is likely to succeed on this side.

Why should not every waiter be trained? Why should this instruction be frowned upon in America, where service of nearly every kind is abominable in most instances? Would it not be a joy to find at your place at the table all the equipment needed at meal time? Wouldn't it make you clasp your hands and glance fervently upward to discover your own napkin at your plate and not the baby's, stiff with gravy or syrup? Think of the delight of getting through the meal without your wife being obliged to hop into the pantry or kitchen to wake the girl. Joys a thousand years away, alas, in this land of the free. The colleges may teach cooking and etiquette, but they never will give this important—one may well say, scientific—branch of instruction. Not in America.

But still more delightful to contemplate are the possibilities this new school presents for restaurants and hotels and the unhappy beings who must occasionally abide therein. It may be that an alumnus of the English School for Waiters really will listen to the order of the misguided human who requests that his eggs be boiled only three minutes, and that at dinner he will refrain from piling before him the entire contents of the kitchen when only four items on the menu were desired. The outlook, even at this distance is so promising that congress should promptly repeal the legal restrictions interfering with the importation of this class of labor.

SOME RURAL JOYS.

A bit of philosophy from J. H. Miller, superintendent of agricultural extension, in the latest "Contest Bulletin":

"The best panacea for the condition of unrest and dissatisfaction with rural life is joy in excellence of production. I do not find that the boy who, by intelligent study and scientific management, is able to produce seventy-five bushels of corn an acre, or who is able to win a premium at a fair on a well-groomed colt, is at all dissatisfied with country life. The girl who is able to win a prize at the farmers' institute for the best loaf of bread is not usually fretting because she cannot clerk in a millinery store.

"Joy in doing things well drives out the spirit of unrest. The pride that comes with increased power—power to grow corn or stock, power to bake or sew, and do it well—will dignify the daily duties of the farm and home.

The joy in seeing things grow, the trees to bud and flower, the corn to grow and put forth its blades, the ear, and then the 'full grain in the ear,' the flowers to put forth their blooms, only for the few, careless, whether seen by man or not—this joy can come only in the country, and blessed are the boys and girls who have the opportunity to live where nature seems most to live.

"There is something, not easily defined, that ought to take hold of the boy or man who plants a seed. It is planted in hope and faith, and yet it ought to develop the nobility of manhood, to be for a season a 'partner with nature,' in bringing to fruition the possibilities of the planted seed; it ought to develop a sturdiness of character to fight obstacles in the way of great fruition, as the farm boy must fight during the season of crop growth.

"These contests directed for the boys and girls of Kansas are more than contests. They are parts of a great course in rural education. They may be made of momentous importance to the social and economic welfare of Kansas. To start them costs the state only a few dollars; to carry them out in every community need cost little;

and yet the educational value, the economic value, the social value, may be

so great in money and happiness that any investment now would be justified."

DON'T BE FENCED IN.

A healthy boy must play. A normal man can not work all the time. The farmer, as well as the city man, needs recreation. Every one, but especially a farmer, works better if he takes a day off occasionally. It is all right to go to town Saturday, but that is not sufficient. Get out, rub against some other township—look over the fence. In the winter it is comparatively easy to find recreation. The district school should, and often does, provide Friday afternoon entertainments and box suppers, but it is more profitable to have a good old-fashioned spelling match. The school-house may be the meeting-place for a country literary society. Many an otherwise wearisome winter has seemed to pass quickly and pleasantly because of the country literary. This organization is no dream; its worth and its practicability have been proved.

In the summer the farmer does not need so many holidays, but he should celebrate the Fourth of July. He should not work Sunday. When the habit is acquired every farmer will enjoy going to church. Too tired? Doesn't feel like dressing up? In some instances this may be so, but in nine cases out of ten when the farmer does go to church he admits that he has been repaid. It rests him.

One of the most enjoyable weeks for a progressive, up-to-date farmer is the week of the county fair. Here he finds real pleasure. He should go, and have an exhibit. It will pay him and he will enjoy it.

In most communities there is an opportunity to attend a chautauqua some time in the summer. This should not be neglected. Go and take the family.

G. E. T.

THE FARMER'S WIFE.

Why should not a college girl become a farmer's wife? The day of privation and hard labor on the farm is nearly past. The rule of fine barns and dilapidated houses is nearly over. If a farmer is so disposed—and the younger generation does show this tendency—he and his family may enjoy many of the conveniences of city life and have others impossible to obtain in cities.

Not many years ago three or four large barns were seen, sometimes, on an eighty-acre farm; but how about the house? It was so little and insignificant among so many buildings it could scarcely be seen.

Some farmers say "good barns will soon build good houses," but one wealthy farmer has been saying that for many years. His daughter is married, and gray hairs are fast covering his head, and still the old house is in use, with a new barn, cattle shed or hay shed built every few years.

There was a time when there were seldom any modern conveniences in the farm homes. The wives went about, day after day, cooking for a number of men, often having to carry water from a well. Many times there was not a newspaper coming to the homes. There was no telephone, no rural mail delivery.

The material change in the farmer's life is due largely to college men and women. Educated women are as necessary on the farms as educated men. An education means money and better living.

L. C.

Try to Get Ahead.

The man who is not studying to improve in his profession is failing to do his part in making the world better—is failing to realize his responsibility to God for the way he uses the acres entrusted to him. For we are all tenants of Him who made the earth and placed man here to cultivate and adorn it, but not to waste it.—*Farm Advocate*.

The corn binder and the silo will do more to get rid of weeds than any other combination of modern farm implements. The binder takes them off the field and the silo cooks the seeds so they cannot germinate.—*The Kansas Farmer*.

The Land We Lost.

BY EMMA A. LENTE.

The lost land, the sweet land—the land we can not find; For we have traveled fast and long, and left it far behind; We have no chart to show us, we have no guide to say: "Give o'er your homesick longing, for I will lead the way."

The child land, the love land—our eyes are dim and weak; Our feet have grown so weary, and, however we may seek, We can not find its pathway, we can not find its gate.

Through which we sometime wandered, though we seek it long and late.

How would it seem again to rest in sheltering love and care? To know unquestioning faith, and pray a simple, childlike prayer;

To drop upon a little bed, sinless, and trouble-free,

And have no comradeship with grief, and care, and misery?

The lost land, the sweet land! We think of it by day.

We dream of it at night time, but never find Back to its broad green meadows, its gardens, bonny-fair,

And all the blessed, blessedness we knew when we were there!

—*The Farm Journal*.

SUNFLOWERS.

There'd be more people in heaven if it wasn't for diamonds.

There are too many asbestos men and women in this world.

Many cutting things have been written lately with a Stubb(s) pen.

It's bad enough to be poor but brainy; think of being rich and brainless!

Nothing is so misleading as an average, especially the per capita wealth.

Friendship between men and women is a most beautiful thing—if begun when they are past 75.

When your neighbor brags that he and his wife never quarrel, watch the papers. There'll be something doing.

Oscar G. Creighton, an insurrecto leader in Mexico, is a Harvard graduate. His football record may now be referred to.

Two candidates for a judgeship in Sedgwick were applicants, forty years ago, for the same place. Some afflictions are incurable.

Poetry, says *The Christian Science Monitor*, is an important part of song. However, this hardly applies to the so-called popular songs.

The newspapers have printed much lately about the Roosevelt dam. They have now given publicity to two of the Colonel's short and ugly words.

Men who never ate a radish in their lives, until they had their own gardens, brag about the first that are picked as if they were blooming century plants.

Many a man who would prove to be a dummy if tossed into the world to earn his living gets a reputation for smartness on the strength of a scowl and much noise.

The *Hamilton County Republican* is running an exciting serial headed "Teeth and Their Relation to Health," two columns a week. Thus far there has been no mention of silos or silage.

"Army Officers Know Nothing," was the rather astonishing head-line, Wednesday morning, in *The Star*. As the editor once flourished in Leavenworth, the home of the army, he doubtless is competent to speak.

"When should lambs be marketed?" inquired a writer in THE KANSAS INDUSTRIALIST last week. Judging by the taste of most "lamb" sold in the shops, the sale should be made at least two years sooner than at present. An ex-convict must be ready, at any moment, night or day, to prove an alibi. Whenever arrested he will be guilty until he proves his innocence. Lolley, in Topeka, knows it. However, any one with a name like that ought to be restrained.

In German, the words *are* and *bite* are very much alike, *are* being spelled *b-i-s-t* and *bite*, *b-e-i-s-t*. A few days ago an instructor in German sent a student to the board to write this sentence in German: "You are mine and I am yours." It should have been written, "Du bist mein und Ich bin dein." The room rang with laughter when it was seen she had written, "Du beist mien und Ich bin dein," or, in English, "You bite me and I am yours."

LOCAL NOTES.

William H. Andrews, assistant professor of mathematics, will judge a literary convention at Alma, Kan., April 29.

The horticultural department is planting one section of the new greenhouse with tomato seed. The plants will be used for experimental and extension work.

Harlen T. Davis, field secretary for the Kansas State Temperance Union, was the speaker in student assembly Wednesday. Mr. Davis told of the progress that Kansas has made toward state-wide prohibition.

J. W. Crabtree, state superintendent of education in Nebraska, has appointed an educational commission that will follow out a number of industrial and vocational plans of the extension department of the Kansas State Agricultural College.

J. W. Searson, associate professor of English, will address the South-eastern Teachers' Association at Nebraska City and the Central Teachers' Association at York, Neb., March 30-31. His subjects will be, "Education for Efficiency" and "Defects in Teaching of Reading and Composition."

ALUMNI NOTES.

A. G. Kittell, '10, Topeka, visited the college recently.

Professor Potter and Eva (Burtner) Potter, '05, are the parents of a daughter, born March 18.

R. H. Brown, '98, assistant professor of music at the Kansas State Agricultural College, is having a new house built south of the college campus.

Charles Zoller, '10, center on the football team, and "Bill" Droege, '09, who have been working in the bacteriology department, left last Tuesday for Utah and other northern points on a home-seekers' excursion.

W. H. Edelblute, '92, writes to Doctor Walters from Rathdrum, Idaho, that he has just been elected colonel of the second Idaho infantry. He says that he is proud of the accomplishment, as it represents eight years of unceasing toil. Mr. Edelblute is United States mineral surveyor for Idaho.

THE WORD PANTALOONS.

How a Patron Saint of Venice Gave His Name to a Garment.

One would hardly think that such a common word as pantaloons could have much of a history. Its history is most curious, nevertheless.

The first people to wear pantaloons were the Venetians. What they really wore we would now call "tights," as they fitted closely and reached from the waist to the ankles. As that was the day of knee-breeches, the garb of the Venetians attracted a good deal of attention. When, in the Sixteenth century, a comic character appeared upon the Italian stage, dressed in the style of the Venetians, he was at once nicknamed "Pantalone."

This meant Venetian, for San Pantalone was the patron saint of Venice, and the name was often given to Venetian children as a surname. After a time the word *pantalone* was applied to the peculiar dress of the character as well as to the character itself. It was then used in the plural, pantaloons.

In recent times the word has been applied, especially by Americans, to what should strictly be called trousers, and the original significance of the word has been lost sight of entirely.

L. H. B.

TREATMENT FOR LUMPY JAW.

Under Some Conditions Operations Are Necessary, But There Are Other Remedies.

Lumpy jaw, or actinomycosis, is caused by a fungous growth, not by bacteria. The growth usually is in the jaw, but sometimes it is found in the tongue. This condition is commonly known as "woody tongue."

When this fungous growth takes place in the lungs, it is sometimes mistaken for tuberculosis. When the

growth is in the jaw bone, it is very difficult to cure by operation, but if confined to the softer tissues it may be removed readily.

In operating for actinomycosis the same precautions are necessary as for any other operations. The operation itself is comparatively simple, but unless disinfectants are used it may result in something more serious than lumpy jaw. One common result of unintelligent operation is blood-poisoning. The best disinfectant to use in the wound is tincture of iodine. Saturate some absorbent cotton with this and place it in the wound. The disinfectant will permeate the surrounding tissue and kill what remains of the fungous growth.

In case the growth is in the bone it is necessary to give internal treatment. Sometimes even when the bone is not affected internal treatment is advisable. Dissolve one dram of potassium iodide in one quart of water and give it as a drench. This dose should be given daily until the skin of the animal begins to chafe off. Sometimes instead of giving such small amounts a large dose is given and the treatment is not continued for so long.

By the internal use of potassium iodide and the application of tincture of iodine locally, lumpy jaw can in many cases be cured. Where an operation is necessary it is always advisable to obtain the service of a competent veterinarian.

TIME TO START EGGPLANT.

A Tropical Vegetable Which Many Like That Is Easily Grown.

The eggplant is a tropical vegetable that can be successfully grown in a temperate climate. Sow the seed in a greenhouse or hotbed the last of March or the first of April. A month after sowing the seed, when the first true leaves are partly developed, set the plants in two-inch pots or two inches apart in a bed. About three weeks later transfer the plants to four-inch pots. If the weather is warm and the ground in good condition, the first of June transfer the plants to the field. They should be set in rows three feet apart.

It is essential to keep the plants from being stunted, of which cool weather and injury in transplanting are the most frequent causes. The pot system of transplanting is better than plots or boxes, because the roots are confined by the pot and are not injured in transplanting.

In preparing the field for the plants, plow the ground well and fertilize abundantly. Barn-yard manure is as good as any commercial fertilizer. After the plants are set, frequent shallow cultivations are necessary. Eggplant thrives best on a deep, sandy loam.

The potato bug is the most serious enemy of the eggplant. Its attacks may be greatly checked by the use of a spray composed of one ounce of Paris green to ten gallons of Bordeaux mixture.

It is not a difficult matter to have fresh eggplant for home use. A few plants transplanted and carefully cultivated will supply a family with an abundance.

Charcoal and Chickens.

Charcoal is necessary for fowls to keep their digestion in good condition, and it should always be kept where they can get at it. Charcoal, unless the sickness is severe, will cure almost all the ailments to which chickens are subject. In buying charcoal, get the coarse-ground kind. Where powdered charcoal is used, it should be mixed with the mash. Sometimes chickens overeat; the charcoal prevents trouble from this cause.—*Southern Farm Advocate*.

The Only Way.

Of all ways of escape I know, the best, though it is far from perfection, is the farm. There a man may yield himself most nearly to the quiet and orderly processes of nature. He may attain most nearly to that equilibrium between the material and spiritual, with time for the exactions of the first, and leisure for the growth of the second, which is the ideal of life.—David Grayson.

MELONS AT \$100 AN ACRE.

THE AVERAGE PROFIT REPORTED BY A SUCCESSFUL GROWER.

Watermelons in Plenty Are Grown in Kansas, but More Money is to be Made From Them—Much Depends Upon the Soil.

The average profit every year for the last ten years from an acre of watermelons was \$100. That is the record made by a man living near Silver Lake, Kan., who has grown from four to twelve acres of watermelons every year for the last eight or ten years.

Watermelons in plenty are grown in Kansas, but there is still more money to be made from them. The successful growing depends largely upon the soil. The best soil is a sandy loam in which there is much organic matter. The land should be well drained. The same ground should not be planted in watermelons two years in succession. Every third or fourth year is often enough. Watermelons are very tender and should never be planted until all danger of frost is past.

Cover the ground in the fall with barn-yard manure and then plow. Before planting in the spring the ground should be harrowed several times to kill weeds and grass. This will put the ground in good condition for planting. Commercial fertilizers are sometimes used, but there is nothing better than barn-yard manure. After the plants have started, add a little nitrate of soda to every hill to give the plants a better start.

To have early melons, the plants may be started under glass in flower pots and transplanted after there is no more danger from frosts. Some persons have trouble in getting a stand of watermelons, because some of the seeds do not sprout, or the young plants die. To avoid this, eight or ten seeds should be planted in the hill, and about a week later eight or ten more seeds planted in the same hill. Then when the plants have started, they must be thinned out to four or five plants in every hill. The seeds should not be planted more than one inch deep, and covered with moist earth. Frequent cultivation is necessary, but never mow the vines. One vine can not mature more than four or five melons at a time.

Y. M. C. A. ELECTED OFFICERS.

The Board of Directors Was Enlarged From Nine to Thirteen.

The Young Men's Christian Association met February 16 and elected officers. They are: Roy E. Alexander, president; Stanley Clarke, first vice-president; Dick Lewallen, second vice-president; Ephriam Ostlund, secretary, and John H. Anderson, chairman of the finance committee.

The association also revised the constitution to enlarge the board of directors from nine to thirteen members. The members of the new board are: President Waters, *ex officio*, Roy Alexander, Stanley Clarke, Ephriam Ostlund, Prof. Francis H. Slack, William Reid, a Manhattan miller, S. James Pratt, a banker, Prof. J. W. Searson, R. P. Evans, county attorney, Leslie Waggoner, a merchant, Dean E. H. Webster, and Dr. G. A. Crise.

The Ministerial Union of Manhattan will name the other members of the board.

At the annual meeting of the board of directors of the Y. M. C. A., March 21, Dean Webster was elected chairman for the coming year; S. J. Pratt, treasurer; Mr. Heald re-elected general secretary, and O. C. Thompson re-elected physical director and director of boys' work.

A vote of thanks was given to the old board for its services, and it was voted to place a tablet on the building with the names of the directors and general secretary who were in office during the campaign to erect the building. An enlarged picture of Mr. Booth will be placed in the building and a tablet with his name on it in the gymnasium, which will be known hereafter as the Booth Memorial Gymnasium.

UNCLE SAM TO BREED HORSES.

The War Department Plans to Have the Government buy 100 Stallions.

Uncle Sam is going into the horse-breeding business. If the plans of the war department are carried out, the government will purchase 100 stallions. These will be assigned to a number of stations throughout the country in charge of experienced ex-cavalrymen as stud-grooms, and will be bred to suitable mares, wherever these may be found. The government will have an option on the foals when three years old, at a price agreed on before the animal is bred.

Two thousand cavalry horses will be available by this plan every year. This is the number of remounts necessary for the present strength of the army. The constantly decreasing number of people that ride horseback, and the displacement of the horse-car by the trolley, make this step necessary, if the cavalry is to continue to be a part of the standing army. What the department would do for remounts in case of war is hard to say. Five hundred fresh horses a day was the quota called for in one year of the Civil War.

THREE MEALS 4 PEOPLE, \$1.

Cheese Pudding is Something New Given on the Menu This Week.

Ever eat cheese pudding? It's great. If you use this week's menus, the three meals will cost only \$1 for a family of four—and you will have cheese pudding. The recipe for making it is included, in case the cook is not well acquainted with the dish.

BREAKFAST	
Grape fruit	
Poached Eggs	
Coffee	Toast
DINNER	
Cream of Celery Soup	
Croissants	Baked Potatoes
Cheese Pudding	
Creamed Lima Beans	
Rolls	Coffee
Floating Island	
SUPPER	
Creamed Dried Beef	Buttered Parsnips
Bread, Butter, and Jelly	

How to make cheese pudding:

8 thin slices buttered bread, $\frac{1}{2}$ cup grated cheese, 2 eggs, 2 cups milk, $\frac{1}{2}$ tsp. salt, and $\frac{1}{2}$ tsp. white pepper.

Butter baking dish. Arrange half the bread to fit bottom of dish. Add cheese, and cover with rest of bread. Mix egg, milk, salt, and pepper, and pour over the contents of the dish. Set in a pan of hot water and bake in a moderate oven until firm.

PLAN MEALS THE DAY BEFORE.

The System Which One Very Successful Housekeeper Follows Regularly.

How many housekeepers plan their meals the day before? The one that does plan and write out her menus before hand finds that it is a great convenience, both to the men from whom she buys her supplies and also to herself.

Menu writing, like many other things, soon becomes a habit, and a most useful one, too. One country housekeeper, noted in the neighborhood for her good cooking, says that her "menu pad" has helped her greatly in lightening her household worries. This housekeeper's plan is to have a pad and pencil handy when she sits down in the evening, then she plans the meals for the next day. She also keeps a scrap-book containing the suggestions she wishes to use for the meals, and one whole section of this scrap-book is devoted to the menus clipped from THE KANSAS INDUSTRIALIST.

Every month you can get a new variety of food, and a list made out each month insures a variety at meal time. Have your lists of meats, vegetables, and desserts handy, and as a dish is used check it off. Plan all the house work ahead of time, especially your days of house cleaning. Just try it and much of the drudgery will disappear.

From Bad To Worse.

No grass, no stock; no stock, no manure; no manure, no crop. Don't be a soil robber.

CHANGES THE GAME LAW

YOU MUST NOT KILL WILD BIRDS EXCEPT ON THE WING.

There is no Open Season for Gray or Black Squirrels—One Provision Will Affect Materially the Women and Their Head-Gear.

Experienced hunters and other men whom the woods and the open call at certain intervals during the year, will find now that they have new lessons to learn in the course of hunting—the game law recently enacted by the state legislature.

The new law makes many important changes, for it alters the open season considerably, and adds forbidden classes of game which hunters must not kill. The constantly decreasing number of people that ride horseback, and the displacement of the horse-car by the trolley, make this step necessary, if the cavalry is to continue to be a part of the standing army. What the department would do for remounts in case of war is hard to say. Five hundred fresh horses a day was the quota called for in one year of the Civil War.

WHEN GAME MAY BE KILLED.

There is no open season for antelope, deer, beaver, or otter for ten years. For six years no Hungarian partridges, English, Mongolian, or Chinese pheasants may be killed.

The open season on tree squirrels is September 1 to January 1; no open season on gray and black squirrels, or on any kind of squirrels in the corporate limits of city or in private or public parks.

Open season on other game:

Wild geese, wild brant, wild ducks, September 1 to April 15. Plover, August 1 to April 30. Snipe, September 1 to April 30. Grouse or prairie-chicken, October 1 to November 1. Quail, November 15 to December 1, cut down from one month.

The new law also provides that you must not shoot at wild game birds sitting on the ground or on the water, and these birds must not be shot at earlier than an hour before sunrise or later than an hour after sunset. You must not shoot at birds from a motor boat, or use live ducks as decoys.

LIMIT FOR A DAY'S SHOOTING.

The limit for one day's shooting is: snipe, 12; prairie-chicken, 12; quail, 12; plover, 12; wild ducks, 12; wild geese, 6; wild brant, 6.

Women are affected materially by the provision that "no part of the plumage, skin, or body of any bird protected by this act may be sold, or kept in possession for sale, irrespective whether said bird was captured or killed within, or without the state."

Fishermen might note that the owners of artificial dams are required to construct fishways under the direction of the fish and game warden. The use of seines having a three-inch mesh is forbidden, except during the spawning season. No person is permitted to use more than one trot-line, and such trot-line shall not have attached to it more than twenty-five hooks, nor shall it be set within 3000 yards of a dam, or within 200 yards of the mouth of a creek or river.

CHORES BY THE ENGINE.

Here's the Way a Farmer at Onaga Saves His Muscles.

Three years ago I bought a 6-horse-power I. H. C. engine to saw wood. Besides a 28-inch wood saw, a rip saw, emery saw, and gumming wheel, I now have a two-hole corn-sheller, feed grinder, feed cutter, grindstone, cream separator, and two pumps, all of which I can fit on my engine. I bought a steel truck on which to mount it, so with two horses I can take it anywhere I wish.

I have a shop 24 by 24 feet and a 24-foot line shaft, which I use to run the ripsaw, grindstone, cream separator, and pumps. The pumps are about 150 yards from the shop, and are run by wires and triangles. By taking the pitman shaft off an old grain binder and making boxings out of oak 4 by 4's, I had nothing to buy but two sprocket-wheels, chain, and wire. I can pump all the water we need at the same time we are running the separator.—Ira D. Smith, Onaga, Kan., Farmers' Mail and Breeze.

When it's an uphill fight, a man can only do his level best.

WHY NOT PLANT THESE?

EVERGREEN TREES GROW SUCCESSFULLY IN ANY PART OF KANSAS.

The Red Cedar is the variety recommended for the state in general—Don't Try to Use Seedlings, but Buy Good Stock.

Evergreens will thrive in any part of Kansas. It is no indication that they will not grow successfully just because there are certain sections of the state where they cannot be found.

The broad-leaf or deciduous trees of the "farmstead" should be supplemented by evergreens, for not only do they give excellent shade, but they make the best kind of a windbreak. A grove of evergreens in very effective for breaking the monotony of the prairie, especially in the winter when the deciduous trees are bare.

RED CEDAR IS BEST VARIETY.

The red cedar is the variety recommended for the state in general by Charles A. Scott, state forester. Next in rank to the red cedar, the hardiest forest trees of Kansas are the Austrian Pine, Chinese Arborvitæ, Honey Locust, and Osage Orange. The Austrian Pine and Chinese Arborvitæ are evergreens.

The growing of evergreens for commercial purposes is not advisable for the farmers of Kansas. Those who start evergreens should use nursery stock for planting, as seedlings require too much care. Nursery stock is quoted at \$25 a thousand.

DO NOT EXPOSE THE ROOTS.

In planting evergreens do not expose the roots of the young trees for any length of time. The trees get their food through the rootlets, which will die from a few moments exposure to the air. Keep the roots wrapped with moistened moss or straw until planting, then pack moistened soil firmly about the roots. Leave a loose layer of soil on top.

Cultivate the plantation of evergreens as you would a field of corn until the trees are large enough to shade the ground, when the cultivation may cease.

A BOOK ON RURAL HYGIENE.

H. N. Ogden, of Cornell, has Written an Important Volume.

The well-known "Rural Science" series has received a valuable addition in the form of a volume on "Rural Hygiene," by H. N. Ogden, professor of sanitary engineering in Cornell. The book gives an abundance of useful and highly practical information on such subjects as the locating of houses and barns; their construction, ventilation, heating, etc. Next to the conditions of housing, the water supply is of the greatest importance to the comfort and health of the inhabitants of the farm, as is the cities' milk supplies. The book gives much attention to these subjects. The quantity of water required for domestic use, the sources of water-supply, with their advantages and disadvantages, the quality of waters, and the construction of wells, water-works, etc., are considered in detail.

Plumbing and sewage disposal are just beginning to be properly appreciated by the rural population. The pages which Professor Ogden devotes to these subjects are certain to be read with interest. There is not the slightest excuse for the dangerous pollution of streams by sewage, or for the malodorous, stagnant pools back of houses, if they can be prevented by such simple means as are described in "Rural Hygiene."

The application of rules laid down in this book on the preparation and care of milk and meat will certainly improve the qualities of these most important articles of diet. The chapter discussing foods and beverages shows the necessity of balanced rations not only for the stock, but also for the people, who very often neglect themselves in this respect. It is also worth remembering that the enjoyment of food is quite as important as any other digestive function. The influence of the personal habits on the health of the individual are discussed in a chapter on personal hygiene.

The latter part of the book is de-

voted to a discussion of the infectious diseases, their direct and indirect causes, and the methods for combating and preventing them. The concise and clear information which the book gives about the care of the patient, the prevention of a spread of the disease, and numerous other questions will make it a most valuable friend and advisor in any home.

A feature which will be greatly appreciated is the computation of the cost, amount, and size of the materials used in the improvements described. Altogether, there is little doubt that this book, as the author hopes, will do something to advance the standard of living. "Rural Hygiene" is published by the Macmillan Company, 66 Fifth Avenue, New York. Price, \$1.50.

POTATO GROWING IN NEW YORK.

An Interesting Letter Tells of Excellent Yields Near Batavia.

Batavia, N. Y., March 18.

To The Kansas Industrialist:

In writing this I do not intend to set forth any new ideas; I only wish to tell about a six-acre crop of potatoes that I raised in Genesee county, New York. The plan that I have followed is the one that is universally used in this section; it may be of interest and, perhaps, amusing.

Our idea is the three-year rotation; that is, the land that will be planted this year was sown to wheat in 1909, seeded to clover in April, 1910, and the wheat taken off when the clover was up a foot high. Cows were turned in in the fall and the land was heavily manured in the winter. The six acres that were planted to potatoes in 1910 were plowed early and worked every few days until time to plant, about June 1. The land was then marked both ways, as it was naturally foul and must be cultivated both ways. The marker used was set to mark three feet each way, making a square with a hill at each corner of it.

The seed potatoes are taken out of the cellar and only the medium sizes are used. They are cut to make three or four pieces, being very sure that each piece contains one good, sound eye which should insure a good hill of potatoes under normal conditions.

Whole potatoes are also used, providing they are not much over the size of a hen's egg. Potatoes are planted the day they are cut. The potatoes are dropped by hand on the cross-section of the mark, and each piece is stepped on that they will stay in place when covered. In about four days the weeder is started. The piece is thoroughly weeded every few days until the potatoes are up. They are then cultivated both ways and recovered; cultivated one way after that until they are large enough to show if there are any signs of an early attack of bugs. If they show signs of bugs, Paris green is used, being put on with a one-horse barrel spray. This crop was gone over twice last year, but the bugs, usually bad, did no harm, as they were taken in time.

At the time this crop was ready to dig, the ground had become so moist from recent rains that we were compelled to dig them by hand. The six acres yielded 1510 bushels, with lots of waste, due to a dry hard-rot. These potatoes keep well in a cellar, and many farmers keep them for the spring market. The market price now is 28 cents a bushel, but I received 40 cents for this crop last fall.

I also had two-thirds of an acre of potatoes in a garden spot in a very sandy place that was marked one way and dropped eighteen inches apart. This gave me a return of 171 bushels. One hundred and fifty bushels of these were also marketed for 40 cents.

W. VAN DE BOGART.

Mr. Van De Bogart is the owner of "Frog Level Park Farm," Batavia. His son is employed in the school of printing at the Kansas State Agricultural College.

Fortune seldom comes to the slothful person. Fortune moves on soon after the knock upon the door. Those who would have fortune enter must open the door promptly. This is especially true in poultry raising.—*The Kansas Farmer*.

TO MAKE CHERRIES PAY

MUCH EASIER TO GROW SUCCESSFULLY THAN PLUMS OR APPLES.

The Trees do Best in a Sandy Loam Underlaid with a Clay Subsoil—Some Varieties That Give Big Yields in Kansas.

Are your cherry trees thriving? It is a common experience among many fruit growers that it is much easier to grow cherry trees, and keep them in healthy condition and fruiting well, than either plum or apple trees.

The best soil for cherries is a sandy loam underlaid with a clay subsoil, although they may be grown upon a tile-drained, heavy, or clay soil. Excessive amounts of nitrogen are not desirable, for the trees may produce wood and foliage at the expense of fruit.

Thrifty and productive trees are found on gravel soils and rocky hillsides, but never where water stands at the roots.

Varieties that prove successful in Kansas are Early Richmond, Montmorency (early, light red), Marella, English Marella, Wragg, Dyehouse, Late Richmond (light red), and Baldwin (late, dark red).

SOUR CHERRIES FOR KANSAS.

Cherries are set out and cared for much the same as plums, but generally they are more productive than plum trees. If well cultivated, and the moisture conserved, the crop is fairly certain. In Kansas about the only successful cherries are the sour ones.

When the young trees are set out all the injured roots and limbs should be removed. If the roots have been severely pruned, cut the limbs back so they will not evaporate more moisture than can be supplied readily by the roots. Do not fill the holes with barnyard manure.

STIR THE SOIL OFTEN.

While the trees are young, and especially during the first year of growth, the soil should be stirred often to preserve the moisture. A good idea is to grow corn the first two years, and then potatoes, melons, or some other hoed crop in the young orchard.

Let the chickens have full range under the trees. They will destroy the injurious insects that fall from the branches.

Barn-yard manure may be used liberally if the soil is sandy or lacks humus. After the trees have reached the bearing age they require more mineral fertilizing elements, especially potash. House garbage contains many fertilizing qualities in soluble and therefore available form.

During the first few years of growth, care must be taken to have a proper distribution of the limbs that are to form the framework branches of a tree.

Butchering on the Farm.

The farmer should have the best kind of meat for his table. Generally the supply consists of a poor quality of salt pork, with an occasional fowl. Farmers must learn to choose the animals best suited for slaughtering and how to handle them previously to killing. They should study, also, the different cuts and how to cure them. Here are the necessary tools and apparatus for farm butchering. The entire outfit costs only \$10: a killing ax or hammer; a 5½- or 6-inch skinning knife; a 12-inch smooth steel; a 24- or 26-inch meat saw; a hog hook; a pitch for bracing beeves while skinning; a 6-inch sticking knife; 3 or 4 wooden gambrels; a small candlestick scraper; a 14-inch steak knife; a block and tackle for raising beeves, and a barrel or tank with a platform for scalding hogs.

Does This Mean Spring?

The bluebottle fly, one of the first signs of spring, has made his appearance. We do not want to be accused of nature faking, but have it from good authority that the slaughter of one of these large blue buzzers at this time will decrease the midsummer fly population by several thousand. Everybody swat the fly while the swatting is good.—*Mound Ridge Journal*.

A SUMMER SCHOOL

at the Agricultural College
For the Teachers

Spring Term begins March 28 and ends June 14.
Summer Term begins June 15 and ends July 27.

Agriculture, Manual Training, and Home Economics

The legislature passed a law requiring all grade and rural school-teachers to pass an examination in elementary agriculture. This law will become effective June 1, 1911. Do you expect to teach school?

About one-half of the country school-teachers of Kansas will close their terms of school before the opening of the spring term of the agricultural college, March 28. The college, therefore, suggests to these teachers the advisability of the investment of money and time for both the spring and summer terms, giving principal attention to the vocational subjects.

The Courses Offered:

Spring Term:

Home Economics: Domestic Science; Sewing; Dress-making; Home Decoration.

Drawing: Free-hand; Geometrical; Object; Perspective; Water-color and Design.

Manual Training: Two courses in Woodwork; two courses in Blacksmithing; Mechanical Drawing.

Agriculture: Elementary Agriculture; Live Stock; Farm Crops; Stock Judging; Grain Judging; Poultry; Plant Propagation; Small Fruits; Market Gardening; Landscape Gardening.

Education: Methods of Study; Methods of Teaching; School Management; Industrial Education.

The Spring Farm Work

Teachers who enter for the spring term will have an opportunity to observe much of the experimental work conducted at the agricultural college.

The summer term does not differ materially from the courses preceding it. The course in elementary agriculture will be offered during the summer session primarily for teachers who expect to teach this subject in country schools or village schools, and especial attention will be given to methods of teaching elementary agriculture in the rural school or in the grades in the village, with suggestions for laboratory work. Those who have time to take two or more of the other subjects named above will not need to take this course in elementary agriculture.

Expenses

The only fee charged by the college will be the regular incidental fee of \$3.00, which the state law requires to be charged of all students who are citizens of Kansas. Nonresident students will be charged a fee of \$20.00 for the first term and \$10.00 for each term thereafter. Board and room may be had for from \$4.00 to \$5.00 per week.

For further information address

H. J. Waters, President

Manhattan, Kansas

TO KEEP MILK SWEET.

GREAT CARE MUST BE EXERCISED BY ALL THOSE WHO HANDLE COWS.

The Milker Should Wear Clean Clothing, Preferably White—Dairymen Would do Well to Distribute Instructive Literature Among Their Patrons.

Clean milk cannot be produced when handled carelessly.

The milker should wear clean clothing, preferably white. The cow's flank and udder should be wiped with a damp cloth before milking. The milker should have clean dry hands; he should never allow his hands to become moist with milk, as it frequently drips into the pail, carrying with it thousands of bacteria.

After the milk has been drawn it should not be allowed to stand in the barn until the remainder of the cows are milked. It must be taken to the milk room at once and poured over a cooler which will bring it down to a temperature of 50° F., if possible, but if water that cold cannot be obtained, 60°, not higher, will do almost as well. The milk should be kept as cold as possible while delivering. This can be done by packing wet sacks around the cans or bottles, or ice may be packed around them.

The dairyman is often blamed for sour milk which has been soured by

the carelessness of the consumer. To remedy this the delivery man should instruct his patrons concerning the care of milk. He may distribute literature on the care of milk among his patrons.

The secret of sweet, long-keeping milk is in preventing as much foreign material as possible from entering it and keeping it at as low a temperature as possible.

A Military Board Appointed.

Charles H. Boice, captain in the Eighth Cavalry, U. S. A., has received notice from the War Department that the board for inspecting the agricultural college cadet corps of the country has been appointed. On the board are: Captain Benjamin T. Simmons, Captain H. L. Laubach, Captain George H. Janerson, and Captain Harry Coates. Captain Simmons inspected the cadets here last year, so one of the other members of the board probably will be here for the annual inspection Commencement week. Captain Boice has received a letter from the Eirbach Bros., who have the contract for the cadet uniforms, saying that they will give a sword to the college this year, as has been their custom for several years past. The captain of the company

THE KANSAS INDUSTRIALIST

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Number 26

MAKE IDLE LOTS WORK.

BOYS AND GIRLS ALL OVER KANSAS SHOULD ENTER GARDEN CONTESTS.

Directions for Sowing Vegetables to Get the Best Results—The Extension Department Will Furnish All Necessary Blanks for Contests.

Idle children and idle lots, combined with hoes, rakes, and spades, and put to work, will produce things of utility and beauty and at the same time develop an interest in something real. This is one of the things that the extension department of the Kansas State Agricultural College hopes to achieve in the garden contests it is now starting. In the past these contests have been limited to corn. The department has suggested various garden contests, but heretofore little interest has been shown in them.

FOR BOYS AND GIRLS.

The contest for boys and girls which is to be started this year offers a good opportunity for farmers' children to take up garden work. It will be an education, and in most cases will mean considerable profit. Seed should be obtained as soon as possible. Sow in rows ten or a dozen kinds of vegetables most commonly used. Sow onions, peas, and radishes as soon as winter freezing is past, and by the first of May or sooner have tomato, cabbage, and pepper plants ready for the garden.

At this time plant seed-corn of Adam's Early, Early Minnesota, Country Gentleman, or Stowell's Evergreen. Plant string beans, cucumbers, and squash at about the same time you plant corn. Be systematic in your work. Get the most out of your ground. Make your garden look good throughout the summer. Plant your garden and care for it in such a manner that you can take pride in it; that you will be able to take prizes in vegetable contests at county fairs and other places; that you will be able to produce something that will be of material value in the maintenance of the family.

50 X 100 TO A LOT.

A plot of ground 50 by 100 feet will be large enough for such a garden, with the exclusion of potatoes.

If the amount of land available for a garden is limited, practice rotation as much as possible. As soon as the early vegetables have been removed from the garden, plant something else on the same plot of ground. By doing this you can grow two or three crops in one season. Every garden should have a few hills of rhubarb, as this plant requires little care and produces one of the most delicious of early spring vegetables. Some horseradish should be planted. Do not omit tomatoes. Sweet corn should be found in all gardens, except the very smallest ones. Grow some of the second early varieties and of the main crop varieties. Usually the earliest kinds are not so successful. Among the root crops which can be used in this way, turnips, beets, and salsify are among the best ones.

Graduates Carry on Work.

Miss Martha Pierce, a graduate of the domestic science department of the Kansas State Agricultural College, living in Junction City, will have charge of classes in sewing for the young women of that town. The plan is to organize a sewing class that will meet for several hours a week, when Miss Pierce and the members of the club will give instruction in sewing.

Shipping Trees Westward.

The forestry department is busy this week taking up and shipping trees to the western part of the state. The state sells the trees to private planters in the western part of the state from the nursery stock at the Kansas State Agricultural College.

CONCERNING A COLD FRAME.

It is for Hardening Plants and Wintering Those Sown in the Fall.

A cold frame is built on the surface of the ground and receives its heat from the sun. It is used for hardening plants, and for wintering plants started in the fall, as cabbage and lettuce. A cold frame should, ordinarily, be placed near the house, as it needs frequent attention. The water-supply should be conveniently near.

The average size of a cold frame is twelve feet long by six feet wide, and covered with sash three by six feet. It is usually made of ordinary lumber nailed together. If one expects to use cold frames every year, it is advisable to use two-inch material, well painted, and held together by bolts. It should face the south to receive the full benefit of the sunshine. The depth depends upon the plant you desire to grow, and the length of time it is to be left in the cold frame. The plant should be as near the glass as possible and yet have room to grow. A plank from twelve to fifteen inches is used for the back and one from eight to ten is used for the front.

Frequently cold frames are made directly in the field, where the plants are to remain and the frames be removed. When used for this purpose, the frames are made as cheap as possible. Two rows of parallel planks are placed about six feet apart, held together by stakes. The plank on the north is from ten to twelve inches wide and the one on the south eight to ten.

The sashes are laid across these. Early gardens may be thus grown. When the weather has settled, the planks may be removed.

FOR THE FAMILY GARDENS.

An Interesting Contest for Town or Country Children in Kansas.

An interesting feature of extension work this year is the family garden contest. This is open to boys and girls between ten and twenty, whether on the farm or in town. Those from the farm will, of course, report to the farmers' institute, while those in town will usually have local committees, although the competition is wholly fair if all enter the same contest.

The garden plot is to be 50 by 100 feet, and in this are to be grown at least ten varieties out of a list of sixteen of the common varieties of vegetables grown. The directions that are to be followed are: First, the varieties to be grown: String beans, peas, radishes, lettuce, cabbage, onions, beets, sweet corn, parsnips, salsify, carrots, tomatoes, spinach, turnips, cucumbers, peppers. At least ten vegetables of this list are to be raised, the selection to be left to the wishes of the grower.

The purpose of this contest is to show the possibility of such a plot of ground, the total yield in vegetable products, and by the results to encourage a more liberal planting and growing of vegetables on the farm and on city lots.

The extension department will furnish blanks for recording yields and sales, and other information to be submitted to contest committees.

Windows in the Horse Barn.

Many horses' eyes are ruined by having the stable windows so that the animals have to look directly at the light. Place the windows so that the light comes either from the side or the rear of the horse. If possible, have the windows in the east, west, or south side, as the light will be stronger and the stable will also be warmer in winter. The windows should be as near the ceiling as possible, as not only do they give more light when so placed, but they will not be broken by the stock. When the building is of stone or brick, the windows should be larger than in a frame barn.

TOMMY IN THE COUNTRY.

AN 11-YEAR-OLD DISCOVERED MANY THINGS IN THE COUNTRY.

This Little Boy, the Son of a Retired Farmer, Enjoyed His Week's Visit "Away From the City's Dust and Noise."

This little story was written by Thomas V. Holmes, 11 years old, son of a retired farmer living in Manhattan. "Tommy's" piece was prepared as a thesis in his grade school work. It is not printed as the work of a "prodigy," but only to show how a boy sees things in the country.

One fine summer morning I went out to the farm. On the way I saw a lot of rabbits and all of Mother Nature and her children. I got to the farm about noon and had some dinner and then I went down to the stable and Howard, the boy of the farm, who was eighteen, saddled up a horse and told me to go to the mail-box and see if there was any mail. I got on but wanted some spurs so I got them and put them on. I started out of the lot and when I got on the road I gave him a cut with the spurs and away we went, and we went too. Across an alfalfa field we went and soon reached the mail-box. There was a lot of mail and I got it. I started home again but did not hurry the horse this time but went slow.

When I got home it was milking time so I went after the cows. The horse knew the shortest way and we had to cross a creek. I let my feet dangle in the water and so got cooled off.

When we were milking I got about drowned with milk because one of the old cows kicked a bucket of milk over and most of it went on me.

The next morning I got up at six o'clock and had to go out after some corn for the horses. I had breakfast at seven. About eight o'clock I went out to get some hay with Howard. I drove the horses and ran over two snakes and killed them both. I killed four snakes in the field. One was a garter snake and the other three were blue racers. When I got home I did my chores and went to bed early.

One day I went out wading and I got my pants all muddy and had to hang them on the bushes to dry. I saw a water-moccasin and I killed it.

One morning Howard told me that he was going out crow-hunting. He gave me a rifle and we started out. When we got out a mile from home we saw two crows. I shot first and missed, he shot and brought one of them down. He was wounded in the leg and wing. The other one got away. When we started home about five o'clock, we saw a little bird that was in great fright. We then saw a large hawk which was after it. I shot and hit it. We took it home and I got some of the feathers out of him and played Indian. It was about six o'clock when I got home and so I never went after the mail. I did my chores and went to bed.

The next morning I went after the mail and got a letter. I went with Howard on the pony after some cattle that we were going to herd to the stock yards and they were awful mean cattle and so we had to watch out. I went after the mail that night. After awhile I went to bed.

In the morning we went to the orchard to make cider. On the way out there we heard a rattle snake near the road and Howard killed it. He was a timber rattle-snake. When we got to the orchard I had to pick apples and ate all I could hold of them. I had some fresh cider but it was too fresh to be good. We went home with a half load of apples. I got my mail and went to bed.

The next day I went home and I told mamma that I never tasted anything quite so good as the things that are cooked on the farm and that it did seem good to get away from the city's dust and noise.

THOMAS V. HOLMES.

THIS BOY KNOWS THE GAME.

A Day's Work Haying, as a Student Writes About It.

The first number on the daily program in harvesting prairie hay is a long morning nap. Only the "mowers" and "haulers" go to work before the dew is off the grass. During the first few weeks of the season the baler does not start before 10 o'clock, and later in the season the hay is not dry enough before 9 o'clock.

The field manager always has his hands full from early morning until late at night. He starts the haulers and mowers, and regulates the amount of grass cut. He oversees the weighing. He keeps the presses going and inspects the work.

The overseer of each press can use part of the morning in getting his machinery in good condition for the day's work. If sufficient help is not available, some of the crew may be drafted to help the haulers until the hay is dry enough to bale.

The rushing work begins when the baler starts. From then until dark there is no stop except a few moments for dinner in the early afternoon. The clanking of the returning plunger goes on incessantly through the long, hot afternoon. Sometimes a horse drops, or a man faints from heat and exhaustion, and the crew quits for a few minutes.

Some time between sundown and dark the work stops. The men take their teams home and care for them and then drag themselves to the house. After a big supper they begin preparations for the next day. Then comes the most pleasant part of the work—a good night's sleep.

WHERE THE COBS GO.

More Than 26 Million were Used in Missouri for Pipes.

A business of twenty-six and one half million corn-cob pipes netted the seven factories engaged in their manufacture in 1910 a total of \$450,418. This is according to the statistics of Labor Commissioner Hiller. On this basis the gain over the output of 1909 is \$200. And 1909 was the previous banner year.

In cob pipes alone the production of 1910 amounted to 26,455,584, all made from Missouri corn-cobs. It took ninety-four ordinary size freight cars to haul this quantity to market. Fourteen ordinary cob pipes weigh a pound. Figuring thus, the many million pipes weighed 1,888,248 pounds. When twenty thousand pounds of pipes are piled into a car it makes a very bulky load. Many of the pipe factories turned out wooden pipes, also. This production amounted to 397,752. And there also were 1,350,500 extra stems, 190,944 pipe cleaners, and 50,000 pits turned out in 1910.—*The Missouri Ruralist*.

How to Treat Quack-Grass.

You have been wondering how to get rid of that patch of quack-grass? There are several ways of doing this, but they require work and patience. Quack-grass lives on year after year. It produces much seed. It has long, several-jointed root-stocks, by means of which it spreads rapidly. One way to eradicate it is to plow late in the fall, or early in the spring, and then use a shovel-tooth cultivator every three days until the middle of June. A harrow will keep the stems cut off below the surface. Then put a cultivated crop on the soil and cut out with a hoe any grass that grows. Where the grass is in small patches, dig up the plant, taking care to get all the roots. Keep this up until the grass is all killed. Another way is to mow the patch in June just as the heads of the grass appear. Then cover with a deep layer of manure or straw. After two or three months plow deeply, the only successful way being to kill all the roots.

WHY DO YOU BUY OLEO?

ANSWER: TOO MUCH POOR BUTTER OFFERED IN THE MARKETS.

The Profits Are so Large that the Manufacturers Can Afford to Run Risks—How One of the Frauds Is Done.

The profit on oleomargarine is so large that the manufacturers can afford to run big risks in selling it. The large amount of poor butter that is being placed on the market has increased the use of oleomargarine, for consumers would rather buy good oleo than pay a high price for poor butter.

These are the principal reasons given by E. H. Webster, dean of agriculture in the Kansas State Agricultural College, to show why oleo takes the place of butter. He says, also, that if oleo was sold on its own merits and not colored and sold as butter, it would never hurt the sale of butter.

TAX 10 CENTS A POUND.

The risk that is taken in selling oleo is shown by the usual operations of these "moonshiners." A man going into this business on a big scale will buy ten sixty-pound packages, each one of which has a stamp on one end stating the name of the manufacturer, the date, and showing that it is artificially colored and tax paid at the rate of ten cents a pound. Generally about 600 pounds are purchased, the price of which includes the \$60 tax.

The merchant sells this oleo out of the various boxes, but he never lets any of them become quite empty. The law provides that when these boxes are emptied the stamp shall be destroyed. The courts have decided that as long as these boxes or receptacles contain any quantity of merchantable oleo they are not empty, and consequently the stamps can not be destroyed.

FILLS THEM AGAIN.

When the contents of all these boxes are down to a pound or two pounds a box, the merchant buys a large number of cases of oleo stamped a quarter of a cent a pound. These he keeps on the upper floor of his store encased in pressed steel sheets, in the basement, or in adjoining rooms. In the same room with the oleo there is a little apparatus for heating and a small churn, which is sometimes worked by a little gasoline engine and sometimes by hand power. The contents of those packages of uncolored oleo are heated until they are plastic. It takes less than 100 degrees heat to attain this. The coloring matter is mixed with a little milk or something similar, stirred up and put into the churn. The packages of colored oleo are emptied, all except about one pound. The dasher of the churn is turned half a dozen times and the product is poured out into the package on which there is the ten-cent stamp.

Get Your Tickets Monday.

Seats Can Be Purchased for the Minneapolis Symphony Orchestra Concert.

Tickets for the Minneapolis Symphony Orchestra, April 10, will be on sale Monday at the Coöp Book Store and Smethurst's Music Store. The orchestra will give two concerts. A ticket for both will cost \$1.50.

This orchestra is one of the best musical organizations in the country and is the highest priced attraction of the kind ever booked for Manhattan. Several soloists are with the company.

This engagement, it should be understood, is not a money-making arrangement. Several admirers of music, business men and others signed the contract for the engagement, guaranteeing a certain amount. Unless there is a large attendance, these persons will be the losers.

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PROF. C. J. DILLON Managing Editor
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BACK TO THE LAND?

Of all the problems that confront humanity, none has received more attention, perhaps, than that involving the wisdom of the movement, or agitation, to encourage men of the city to go back to the land for a living. It is a question that will not be put down. It bobs up every day, and with especial frequency in the agricultural college, where boys and girls are making out the programs for the future. It is hard to answer, too, because no two men are likely to go at a task in the same way. One city man might make good and another, in the next field, fail miserably. It is a big, big problem.

"Some of the most successful countrymen I know were city folk, and many of the most disastrous failures were also city folk," says Prof. Liberty H. Bailey, of Cornell, in the March edition of *Country Life in America*. "If my reader knows farming and is country-minded, he may go on a farm with assurance, if he is not too old and if he has sufficient capital. He probably will find it a most satisfying business, if he secures a good location. He must expect many discouragements, for the things that can happen on a farm are beyond all imagination, particularly if the place is left more or less in the hands of a hired man or a tenant. Wells will go dry; pigs will lie down and give up the ghost; eggs will refuse to hatch; sheep will have themselves killed by dogs; plows will go to smash; horses will acquire the heaves or run nails into their feet; trees will infest themselves with San José scale; the cellar will freeze and the roof will leak; sickness will invade the hired man's family; and no end of tools and things will take themselves into parts unknown or vanish into thin air; and the perplexity of it is that the books and the periodicals do not give recipes for all these torments and troubles. My city enthusiast will reply that the unexpected happens in town as well as in country; I know it, but I want him also to understand that it happens in country as well as in town, and that he must lay by a capital-stock of patience, good temper, and ready money."

"I care nothing where the farmer is born—whether in city or in the country or on the sea—if only he is really a farmer. To be really a farmer is to be farm-minded and to know the business; and the way to learn to be a farmer is to practise it, and while practising it to call to his aid all good advice in books and elsewhere. He should learn the business from a good farmer, or if he has the time and money to spend, he may teach himself, but he is likely then to have a very long course of study and a very incompetent teacher. The more schooling he has—particularly in an agricultural institution—the sooner and the more fundamentally should he learn, and the better should be his results; but he must really learn how, nevertheless. One can never run a farm by admiring it and by reading about it. Nothing is easier than to figure a profit on a paper farm; one has only to choose a product that yields heavily and sells for a high price, then estimate the cost of cheap land, and the thing is done."

FOR ARBOR DAY.

Arbor Day next Friday, April 7. Plant a tree; plant several, not because it is Arbor Day, but because you need the trees. Charles A. Scott, state forester at the agricultural college, gives general and timely advice along this line. Says the forester:

The most desirable native trees for shade and street planting are the white elm, hard maple, and red oak, all of which are long lived when compared with the cottonwood, boxelder, or maple. The red oak is coming into general popularity. It is shapely and handsome. Throughout the summer the foliage is a deep green, which changes to every imaginable hue with the approach of autumn, and furnishes an array of color during the fall months. These trees are rather slow growers, but it does not require many years for them to reach a sufficient size to provide shade, and their greater hardiness and longevity more than offsets the time required to make their full growth.

A white elm, hard maple, or red oak are not old trees at one hundred years. After a tree has protected your home from the heat and cold and from the storms you become greatly attached to it. Then why not plant a tree that will outlive the present generation and be a blessing to the next?

Inasmuch as Arbor Day is a day set aside for the planting of ornamental trees, and especially as it is recommended for a holiday in public schools, the pleasures of the children should not be overlooked. Nothing brings more delight to the heart of a child than the gathering of nuts. It would be a mistake to overlook the planting of a few walnuts, pecans, or butternuts on this occasion. Such trees, however, should occupy a somewhat secluded spot in the yard rather than the most conspicuous location. Plant the nuts where the trees are to grow. The nut-bearing trees do not transplant readily.

For ornamental planting the evergreens are perhaps the most prominent trees. For Eastern Kansas the Colorado blue spruce is the most desirable of the evergreens. It is perfectly hardy in this section of the state and its general use is highly recommended. The white fir is another of the Rocky Mountain species which is a general favorite. The white and Austrian pine are the best of the larger-sized conifers, and they should occupy a prominent place in all extensive plantings.

For Western Kansas the white elm and hackberry are the most desirable of the broad-leaved trees for shade and street planting. The Russian wild olive, though not a shade or street tree, should occupy a place in every yard. Its fragrant blossoms are always agreeable, and its silvery white leaves are delightful. It has proved entirely hardy throughout the prairie states from Kansas to North Dakota.

For ornamental planting the Chinese arbor-vita must take the place of the Colorado blue spruce and white fir. This is rather a small-sized evergreen, but always adds much to the appearance of a yard by its ever-welcoming green. The Austrian and Scotch pines and red cedar are perfectly hardy, and should be planted extensively for windbreaks.

TEA BISCUITS IN COLUMBIA.

Ever eat beaten biscuits? If you bought them in a certain tea room in Kansas City you needn't think you know anything much about the kind referred to here. This means real, downright tea biscuits, made by Annie Fisher, of Columbia, Mo. The tea biscuits she makes, says a writer in *The Kansas City Star*, have become proof of social standing in Columbia. If you don't eat them you are nobody. No luncheon or dinner or reception is complete without them. They are the long-felt want in a little city where life—in the estimation of those that live there—has not much left to desire. It may be cloudy and gray in Centralia, but the sun shines always on Columbia and its elect.

Money from these biscuits has provided their author, who is a negro, a

A Golden Text.

And the Lord thy God will make thee plenteous in every work of thine hand, in the fruit of thy cattle and in the fruit of thy land, for good.—Deut. 30:9.

good home and a bank account, and her only daughter is receiving a college education—all due to her beaten biscuits. Here is the program by which they are made: Take one quart of sifted flour, one third cup of pure lard, one third cup of butter, one cup of sweetened water, salt to taste.

The ingredients must be mixed thoroughly, and after it becomes as stiff as a pie crust it must be worked for fifteen minutes to put life in it. But don't work them too long or you will work it all out again. Use part lard and part butter to keep the biscuits light. After the biscuits have been worked the cook puts them through a roller that appears much like a clothes ringer. Then she cuts the biscuits ready for the oven. The biscuits must be baked about fifteen minutes over a slow fire. If they blister on top they are baking too fast. And before they are put in the oven there should be little holes stuck in the top of each one.

It is up to Kansas, now, to produce something worth while from its alfalfa flour or its soy-beans. Columbia must be shown.

THE RURAL DECREASE.

In some sections of the Middle West the rural population is steadily decreasing. This has been going on for more than fifty years in the older settled parts of the country. It is now very noticeable in Eastern Kansas, Nebraska, Iowa, Illinois, and Northern Missouri.

There are several causes for this decrease. The main one is the land hunger of the farmers. There always has been and always will be a constant movement from the high-priced to the low-priced lands. This movement has been greatly hastened by the influence of the land speculator. The speculative handling of lands has been reduced to a science. The speculator purchases his options upon large tracts, advertises them, and gets home-seekers' low rates on the railroads. He sells the land as farms, his only object being his own immediate profit.

The increased efficiency of farm machinery has helped this movement. Fewer men are required where the usual extensive system of farming is carried on than were required a few years ago. The high price of labor has forced the farmers to use more complicated machinery, more horses, and more steam and gasoline power.

But this decrease probably will cease in the next few years. The demand for food from an increasing population will require a larger farm production from every acre. This will involve intensive cultivation, which means an increase in the number of farmers.

F. B. N.

AS TO FARM WAGES.

It is distinctly encouraging to read in the latest reports from that mine of information: the United States Department of Agriculture, that average farm wages in 1910 were higher than at any period in the country's history. This condition the farmers must maintain, too, if they expect and desire help in the fields. The time is ripe for every man to strike out for himself. Few need to work for others. The man with a will and a brain can buy or rent a farm now with one third the formality and cash necessary a quarter of a century ago. The hired man with gumption can get land and farm for himself and put in his spare hours, if he have any, seeking a hired man for himself.

Not long ago, in California, \$20 a month and your board was the scale wage on the big ranches or farms. You could get in some "extra," if you knew how to handle tools, by making orange or lemon boxes at one cent apiece. The only extra you can have on a wheat farm is extra hours and extra work. If farmers expect men to do this work, they must share with them the profits, and give them real beds at night. Harvest days are ex-

cellent in song and story, but very unhappy times in reality, sleeping in the barn. Twenty-five dollars a month for that kind of work, the usual rate, is little enough.

KEEP FATHER THERE.

A boy's decision to stay on the farm does not necessarily mean that his parents must move. Ordinarily, when a farmer turns his business over to his son, the retiring farmer himself moves to town. A. M. Ten Eyck tells his class in farm management at the Kansas agricultural college that this is not right.

The son should encourage his father to build his home on a choice spot on the farm instead of in town. Retired farmers can have all the luxuries of the city, and more too, in the country. A retired farmer can be a benefit to the rural community. In many cases he has lived there nearly all his life. He knows the country, and therefore is better qualified to judge what is best for the country than is the younger generation. He should take an interest in the good-roads movement, farmers' institutes, and numerous other things that point to the betterment of rural conditions. His fine home in the country would improve the appearance of the neighborhood in which he lives.

In most instances, retired farmers are no practical benefit to a town or a city, except for the homes that they build. They naturally give little attention to the municipal schools, to street improvement, or other public work. Their money generally is invested in farms.

SWAT THE CAUSE.

It is indeed a laudable enterprise to go about "swatting" the flies, but how much better to swat the cause and so prevent the fly from being born.

It is no easy task to write upon this subject. Almost anyone would prefer to discuss strawberries or the lumpy jaw disease or even tuberculosis. The fly is such a filthy thing, and it gets so close to human beings.

Wherever you find a manure pile, or any other filth, you will find millions of flies in the making. Turn over the pile and see the white spots—fly eggs! Typhoid, and no one knows what else, starts there.

Watch the fly. If a yellow newspaper printed a map—a dotted-line picture—of a fly's movements, it would show this: Manure pile and other sources of disease in the neighborhood—house—open window or door—on the bread or butter or other food—a scraping of its hairy legs—a scattering of disease germs upon the food—fever, summer complaint, cholera infantum, tuberculosis—death.

Swat the Cause and you Prevent the Effect.

THE NERVE OF IT!

Not long ago the West was shocked to hear that some one in North Carolina had produced 250 bushels of corn an acre—or some other equally absurd figures. Now comes Massachusetts, and for its cause of action says, in part, i.e.: that the said Massachusetts does produce an average yield of 39.4 bushels of corn against 38.8 for Illinois and 27.8 for Kansas. The idea!

But that isn't all: Just to show that the rocks of old New England really have soil under them, some upstart declares that Texas, with a cultivated area 40 times as large, produces crops worth only three times those of Massachusetts. Emboldened, doubtless, after getting this out of his system, the Massachusetts novelist says:

"Over \$1000 has come from less than two acres of cantaloups. A half-acre strawberry patch will yield about 5000 quarts, worth close to \$600."

Sure it will—in Kansas or California. Notice that? Wasn't he the careful person? Not a word about where this cantaloup crop was produced. Just tells it and lets easy ones suppose it happened in Massachusetts.

At this rate, it won't be long until Mississippi comes to the front as the leading wheat state.

"The Banks Are Full of Money," says *The Kansas City Star*. There's some pleasure in knowing where it is, any way.

When April Comes.

Never sings a city robin on the graystone window ledges
But I dream the long, long meadows where
the sweet primroses be,
To his call I guess an answer, from deep grass
and tangled hedges—
There's a thrill of other spring times in the
country soul of me!

Never falls light rain above me but I hear its gentle patter
On a lonely roof at even as I heard it years ago;
Through the music, warmth and fragrance,
past the sweep of careless chatter,
Throbs the silence of far places where the pines and birches grow.

—Ruth Guthrie Harding.

SUNFLOWERS.

More smiles than tears, that's April weather.

The value of the farms in Kansas is only \$1,733,653,000.61. The 61 cents was for a new wrench and a quart of gasoline.

Very thoughtful of the fire chief in New York to condemn the Asch Building, wasn't it—after 150 lives were lost in it?

"Salina Wants In," said *The Hutchinson News*, last Saturday. "Wants in" is Missourian, undefined, and brother to "Wants off."

"Can the corn crop be doubled?" inquires *The Wichita Darklantern*. It can, Henry, if you hump yourself occasionally and carry the news to the soil.

Just as the papers were resuming their normal appearance, along come the local campaigns and the same old run of impossible pictures of the candidates.

No more Sunday mail. The postmaster and every member of his staff should be forced to attend church and Sunday-school twice a day in the future.

Strange, isn't it, how the tariff operates? It must be the tariff that makes beef cheaper in England than in this country, where the supply is so much larger. It must be the tariff.

Water piped into the house, a churn operated by gasoline or electricity—any conveniences that save aches and pains—are investments that pay big dividends in women's smiles.

"Never heard of Chilapa?" *The Star* exclaims, "Why, that's in the state of Guerrero." And Guerrero, let *The Star* take notice, is war in Spanish. Fine joke you missed.

It was all very fine for Harry Shedd Beardsley to give out an interview showing how he rose from reporter to magnate in New York. But just wait until the visitors begin to call; you'll see.

The fire in New York in which 150 persons perished, last week, started from a cigarette. The rough who stabbed a street-car conductor, in Kansas City, was smoking a cigarette. "Aha!" says McKeever.

The Beloit papers reported, last week, that enough gas had been discovered near that city to kill a hen. Now, why should anyone drill 150 feet to get enough gas to kill a hen? What had the hen done?

Every few days the papers print scare-head stories about some message which some one, 4675 miles away, has heard. Many, many years ago, children, a man near Concord, N. H., fired a shot that was heard round the world!

"Norm" Happgood was 43 years old last Tuesday. How he must gloat over the memories of the dear, dead past and the times he has had! "Norm" never ate bran or let anything worry him, except, perhaps, his morning's graham cracker.

Several farmers near Plainville, Kan., promised to send their sons to a business college in York, Neb., and discovered, too late, that they had signed promissory notes. Any Kansas farmer who would send his boy outside the state for an education ought to be beaten—with a club.

Young Wife.—To prepare cabbage properly wait until your husband leaves town, preferably on wash-day. Open all the doors and windows. If you have a valuable dog, chain it to a stout post, as otherwise it will leave home. Having boiled it—the cabbage—for an hour and thirty minutes, put it, unprotected and alone, in the alleys and hope for the best.

LOCAL NOTES.

Two live prairie-dogs and two snakes are on exhibition on the second floor of the museum. The snakes are a blue racer and a spreading viper, or hog-nosed snake. They are harmless.

The regular meeting of the Science Club will be held in the Physical Science Hall, Monday, April 3, at 7:30 p. m. Papers will be read by Professor Jardine and W. S. Gearhart. Everybody is welcome.

Workmen have begun wiring the new gymnasium, under the supervision of the electrical engineering department. All wires will be placed in conduits for protection. The cost of the job will be more than \$3000.

The mechanical engineering students went to Kansas City Wednesday, March 29, for a general inspection of power plants and industrial establishments. A. A. Potter, assistant in the mechanical engineering department, went with the students.

The next meeting of the American Institute of Electrical Engineers will be Tuesday night, April 4, in C 60 at 7:30 o'clock. Papers on "Comments on Fixed Costs in Industrial Power Plants" and "The Cost of Industrial Power" will be read and discussed. Any person interested in this line of work, especially students, is invited to attend.

Mauricio Julian Oteyza, a Filipino who attended the Kansas State Agricultural College for several years, has written "A Message to the Filipino People," and a part of the article is published in the *Manila Times*. Mr. Oteyza deals with the uplifting of the Filipino race through the efforts of the American government and the building up of the commercial welfare of the country by applying American business methods.

ALUMNI NOTES.

Roscoe T. Nichols, M. D. '99, is a candidate for mayor at the coming spring election at Liberal, Kan.

Harry C. Rushmore, '79, visited the college recently. Mr. Rushmore is an active worker in alumni work.

W. R. Ballard, '05, is now at the Maryland agricultural experiment station. He writes that he is experimenting with the grafting of walnuts.

S. C. Mason, M. S., a graduate from Kansas State Agricultural College in 1890, was visiting college friends this week. He spoke in student assembly Wednesday. Mr. Mason was connected with the horticultural department of the college for several years. He is now in the bureau of plant industry of the United States Department of Agriculture. Mrs. Ed. Perry entertained for Mr. Mason Tuesday night. Mr. Mason was the guest of Albert Dickens, professor of horticulture, while in Manhattan.

William L. Hall, M. S. '98, has been appointed, by James Wilson, Secretary of Agriculture, to establish a 10 million dollar national forest reserve in the East. Mr. Hall formerly had charge of the department of forest products in Wisconsin, and at the time of his appointment was assistant to Chief Forester Graves, of the United States Department of Agriculture. The forest reserve of which Mr. Hall will have charge will be located in North Carolina and Virginia and in the White Mountain district of the New England states. The position is one of importance. Mr. and Mrs. Hall will make their home in the East.

ANTHRACNOSE, A BITTER ENEMY.

What to do When Cane Rust Attacks the Raspberries and Blackberries.

When your raspberries or blackberries become diseased, you may call the trouble cane rust, but the right name of the disease is anthracnose, one of the most serious enemies of the berry grower.

The gray, discolored spots caused by this fungus are well known to all who grow berries. They are found on

all parts of the plant above ground. They often become so numerous that they destroy a large part of the living cane and greatly weaken or even kill it. The disease is especially liable to work injury just at the ripening period.

Experiments have shown that the spores germinate most readily in pure water. The disease spreads more rapidly in wet than in dry weather. For these reasons set and train the plants so that they will have plenty of sunlight and air. Old wood should be removed and burned as soon as the fruiting season is over. The disease may be controlled by spraying with Bordeaux mixture (4 pounds of lime, 4 pounds of copper sulphate, and 50 gallons of water).

In setting a new plantation, be careful to secure plants free from the disease. Spraying the young shoots when they are six or eight inches high, and once or twice thereafter is an additional precaution, at a little cost. The older the bushes, the more troublesome the disease may become. It is generally more satisfactory to remove the plants after the third crop.

As the mycelium remains alive in the cane during the winter, spraying cannot cure the disease. It can only prevent the germination of the spores as they are produced. The mycelium are the white, thread-like growths from which the fungus develops.

MAKE THE HOUSEWORK EASY.

Some Modern Inventions That Lighten the Kitchen Labor for the Women.

The housewife of to-day does not have to dread doing the kitchen work, for with the many modern labor-saving devices at her command, the bugsaboos of this sort of labor have disappeared.

Within the last decade the fireless cooker has become popular among housewives because, besides being a time saver, it is economical and improves the flavor of foods. With a fireless cooker, no time or precaution is required for fire building. It keeps the food at an even temperature. No fuel is needed, except in heating the food before putting it in the fireless cooker and reheating when removed. Many flavors otherwise lost are retained by this method.

The steamer is also very helpful, as it saves space on the stove and increases the flavor of foods. No article deserves more praise than the kitchen cabinet. With one of these almost an entire meal can be prepared without leaving the table. It also beautifies the kitchen.

A sink with warm and cold water saves time and labor in the kitchen. It saves the housewife many steps in disposing of waste, and the hard work of drawing or pumping water, when the men are away.

Nothing is so tiresome for a woman as the old-fashioned wash-tub and board. To the person doing her own laundry work, the up-to-date washing machine and wringer are helpful. Since electricity is used in so many homes, the electric iron is becoming very popular, for in doing a family ironing it saves many steps.

Other devices that are labor saving are the mop wringer, can opener, cement or hard floors, and cases on the wall near the range that contain the salt, pepper, and things that are needed so often at the range while preparing a meal.

Those Busy Bankers Again.

The Bankers' Association of Illinois has organized an agricultural committee, and has signified its intention of co-operating with the committee of the grain exchanges. This organization is now sending out an address by Doctor Hopkins on "Saving the Soil," through its 1500 banks throughout Illinois.

Investigation Results.

Benefits which may accrue from the agricultural investigations of an experiment station cannot always be estimated in dollars and cents. The influence of the information thus gained nevertheless covers a vast field and accounts for the great amount of progress displayed in present-day agriculture.—*The Farmers' Review*.

DON'T USE GOOD GROUND.

PLANT PEARS WHERE IT IS POOR AND STONY, AND CULTIVATE LITTLE.

The Varieties That Do Best in Kansas Are Keiffer and Seckel—What to Do in Order to Combat the Blight.

Pears do not need to be planted in the best ground on the farm. Success comes easier if they are planted on poor, stony ground and cultivated little.

The greatest drawback is the pear tree blight. This is caused by a bacteria which is supposed to enter the growing points, principally the flowers, or sometimes the buds. It affects only the succulent, green wood. When a tree becomes very thrifty and produces an abundance of soft wood it is more likely to be infected with blight. This is why it pays to plant on poor ground and cultivate only enough to keep the tree growing steadily.

The Kansas State Agricultural College uses the same sprays for pears as for apples, and finds that the insects that injure pears can be controlled in this manner.

VARIETIES FOR KANSAS.

For Kansas the Dutchess, the Keiffer, and the Seckel are the standard varieties.

The Seckel is rather a small, sweet pear, but the Keiffer probably stands shipping better than any other variety.

The Douglass is a new variety, but is becoming more and more popular. The Suddoth pear was once supposed to be blight proof, but has not proved so, although it has considerable power to resist blight.

In selecting trees from the nursery, get vigorous, healthy stock. Small trees can be transplanted with less work and less danger of loss than larger ones.

THE PEAR TREE IN TOWN.

For planting in the back yards of town lots, and in other places where space is limited, the dwarf pear is the best one. This is obtained by simply drafting the chosen variety of pear onto a quince root. This dwarf pear tree should not be more than 14 or 16 feet high, and by proper pruning can be kept down to almost any desired size.

In setting out the trees have the roots in a natural position. Cut off all bruised and injured ones. Trim back the top in proportion to the way the roots have been cut back. Place good soil around the roots and settle it firmly. Plant deeply enough to cover the point where the tree has been grafted onto the root.

Many persons complain that pears winter-kill badly. This can be overcome largely by ripening the wood properly. The wood is ripened by allowing the ground to dry out in the late summer and early fall. This stops limb growth and causes the wood to mature.

DO YOU KNOW THE CUTS?

The Butcher Can't Sell the Domestic Science Girls Sirloin for Porterhouse.

Do you pay for a sirloin steak and get a porterhouse? Maybe you don't know the difference. The girls in the domestic science course at the Kansas State Agricultural College know it. They attend meat-cutting demonstrations and watch an expert divide a carcass into steaks, roasts, and boils. Then when they order the day's supply of meat they know just what they are getting.

Of course few butchers would willingly cheat a housewife. But there is so little choice steak on a beef, and the demand for this is so large, that it is an easy matter to let the knife slip over a few inches in deciding which shall be sold for sirloin and which for porterhouse. The difference in price may have something to do with the ease with which the knife wanders.

The girls are taught to distinguish quality in cuts of beef. Meat is like cloth and there is a distinct difference in its texture. Old, tough meat has a coarse look, and young, tender meat of good quality has a fine-grained appearance. The difference between

young and old meat can be told by the bone, for in young beef the blood runs into the bone and tints it pink, while in old meat the bone shows hard, white, and flinty.

The girls are taught not to buy fresh-killed beef, for the cook who knows prefers "hung" beef. A second cut that has hung six weeks is much to be preferred to a first cut that has hung three weeks. The hanging process gives the meat juices time to get to work and tear down some of the tissues which make fresh meat tough.

TO MAKE HOTBED SOIL.

The Compost Method—Piling up Sod for Two Years.

Two years—sounds like a long time, doesn't it? It takes that long to get soil really properly prepared for use in a greenhouse. The compost method is the ideal one for preparing soil for use in a greenhouse.

A layer of sod two to four inches thick is plowed up and left in the field through severe, freezing weather, which kills the injurious insects. The sod slices are then cut into pieces of a size convenient to handle. They are taken close to the greenhouse and left in piles. The sod is placed in the pile with the grass side down. Two layers of sod alternate with a layer of well-rotted manure two to four inches thick. Make the pile about four feet high. The length and width will depend upon the amount of material used. The top of the pile is concave, to catch the rain and snow. The moisture is necessary to decompose the manure and the organic matter in the sod. Water should be turned on the heap in dry weather.

The compost should be allowed to stand for a considerable period, preferably two years. Then cut up the material with a sharp hoe or spade, mix thoroughly, and put in the greenhouse. Material prepared in this manner also makes excellent soil for a hotbed.

POTATOES THREE TIMES A DAY.

If You Are Fond of These Try the Menus Given Here.

Some men like to have potatoes three times a day. Try these menus and see how they work out.

BREAKFAST	
Rolled Oats	Cream
Boiled Eggs	Baked Potatoes
Graham Muffins	Strawberry Jam
	Coffee
DINNER	
Roast Spareribs	Apple Sauce
Brown Potatoes	Cole-Slaw
Bread	Butter
	Pumpkin Pie
SUPPER	
French Fried Potatoes	Tomatoes
Finger Rolls	Butter
Baked Apples	Peanut Hermits

Mutton Lambs.

Although the prices for mutton sheep have seemed low during the past winter, there are good reasons to believe that there is to be good money made in raising mutton lambs for market. While such extreme high prices as prevailed last year, which were abnormal, may not be realized, there is to be a demand for good lamb mutton, raised in the proper manner, and sold at the proper time of the year. Good, well-fattened, juicy mutton is a good, healthy kind of meat, and people who buy good meat have learned to like it, and are willing to pay well for it.—*The Farmers' Review*.

The Light Spreads.

B. F. Eyer, professor of electrical engineering, has received inquiries from all parts of the United States concerning electric lighting outfits. His articles on this subject have been published in many papers. Letters were received this week from Illinois and Louisiana.

Corn implies cattle and hogs; it means crop rotation; it conserves the fertility of the soil; it makes for all-round better farming; it is the bringer of the silo, the dairy barn, the creamery, and the monthly cream check.—*Minnesota Farm Review*.

NINE GRASSES TO USE.

JUST A FEW VARIETIES THAT ARE ADAPTABLE FOR FARM CROPS.

Important Places in an Efficient Crop Rotation in Kansas—The Best Kinds, Especially if Sown with Alfalfa or Clover.

Of the thousands of varieties of grasses known to the botanist, only nine have a general adaptation for farm crops. These, in the order of their importance, are: Timothy, Kentucky blue-grass, Bermuda, orchard, redtop, brome, meadow fescue, tall oat, and meadow foxtail. The legumes, such as alfalfa and clover, are not grasses. There are several wild grasses of importance in Kansas, such as bluejoint, big bluestem, little bluestem, buffalo, and Indian grasses.

Grasses have important places in an efficient crop rotation in Kansas. Usually they should be sown in combination with one or more of the legumes, such as alfalfa or clover. If this is done, the physical condition of the soil will be improved, and nitrogen added. In choosing the varieties of grass to sow, attention should be paid to their moisture requirements. The adaptation of the grass to the soil must also be considered.

The Kansas experiment station recommends these grasses and combinations for meadows in Eastern Kansas: Timothy and mammoth or Alsike clover; orchard-grass and common red clover; meadow fescue and red clover; redtop and Alsike clover.

For Central Kansas combinations use orchard-grass and common red clover; brome-grass and common red clover; brome-grass, orchard-grass, and common red clover; western rye-grass and brome-grass with clover.

In Western Kansas the best results are gained from these combinations: Brome-grass, western rye-grass, and alfalfa; brome-grass and alfalfa; brome-grass and tall oat-grass may be sown alone.

Here are the amounts of seed in pounds an acre for meadows: Timothy, 12; Kentucky blue-grass, 24; orchard-grass, 32; meadow fescue 38; redtop, 16; brome-grass, 18; tall oat-grass, 24; Johnson grass, 25; western rye-grass, 15; perennial rye-grass, 30; Italian rye-grass, 30; common red clover 10; mammoth clover, 10; Alsike clover, 6; alfalfa, 12.

When two or more varieties of grasses are seeded together, it is best to seed at a slightly increased rate above what the proportional part of the regular seeding would require.

TO PREVENT SEASON-CHECKING.

Some Treatment that Will Be Beneficial to Hedge Fence Posts.

Hedge fence posts often season-check or crack open and let the staples fall out. Charles A. Scott, state forester at the Kansas State Agricultural College, says this can be prevented by proper seasoning. When the posts are cut put them under water to season and leave them there a year. This has the double advantage of keeping insects away from the posts and preventing the checking.

The tree to use for a hedge fence in this state is the Osage orange, commonly called hedge. It is a very hardy tree. It is especially adapted to the dry parts of the state, but will make a better growth in the eastern half, where it can get more moisture. The Osage orange will grow in almost any kind of soil. Under favorable conditions it will reach fence-post size in twelve to fifteen years. In the meantime, the trees make a good fence.

In planting, use one-year-old seedlings. These cost \$2.50 to \$3 a thousand. Set about eighteen inches apart in the row.

Cow-Peas and Potatoes.

When you are plowing for the last time, sow cow-peas just ahead of the cultivator and cultivate them in. They come up quickly and cover the ground before the weeds get started. When peas are ripe they may be mowed for hay. They make good feed, leave the ground clean, and make potato digging an easy job.—*Missouri Ruralist*.

SORGHUM 14 MILLIONS.

WHAT KANSAS MAKES ANNUALLY IN MONEY FROM ONE BIG CROP.

As a Drouth Resistant, None is Better for This State—Excellent for the Silo Because of its Forage Value.

Kansas produces 14 million dollars' worth of sorghum every year.

As a drouth resistant, sorghum is exceptionally successful, and is becoming rapidly the main crop in Southwestern Kansas.

Even in the central part of the state, where corn is grown to good advantage, sorghum does nearly as well. Varieties such as black, white, and red Kafir yield more pounds of dry matter to the acre. Because of its general adaptability to Kansas conditions, and its remarkable worth as a feed for live stock, it is a valuable crop for this state.

TWO GROUPS OF SORGHUMS.

Sorghums are divided into two groups, the non-saccharine, and saccharine. The principal non-saccharines grown in Kansas are Kafir, milo, and broom-corn. The black, white, and red Kafir are adapted to the central and east-central parts of the state. These crops are not quite so drouth resistant as the others.

The milo and dwarf Kafir are adapted to the extreme western part of the state. The milo is small, matures early, and yields high, producing satisfactory grain crops where the rainfall is very low.

IS VALUABLE FOR THE SILO.

Broom-corn is also a drouth-resistant strain of the sorghum, and is becoming valuable for its brush. It is one of the most profitable crops for Western and Central-western Kansas, and is being advocated by the Kansas State Agricultural College experts.

The saccharine sorghums are preferred by some persons to non-saccharine for forage, for which purpose they are grown in Kansas, although some attention is given to their culture for the manufacture of molasses, and also for the production of seed.

Sorghum makes an excellent crop for the silo on account of its high production of forage. For this purpose the non-saccharine should be grown, because the saccharines make a silage which is too sour.

THE WORD BARBARIAN.

A Word Involving More or Less Conceit by the User.

The word barbarian originated with the ancient Greeks. To them it meant simply one whose speech they could not understand; later it came to mean those whose customs differed from their own; eventually it designated all not Greeks.

The Romans borrowed the word from the Greeks and applied it to them as to all others not Romans. After the time of Christ they applied it to those nations not possessed of Christian civilization. From this meaning developed the idea that the word now conveys, of one who is in a savage, uncivilized state.

In the fifteenth and sixteenth centuries the Italians applied the word to all foreigners, and the word is now so used by the Chinese.

The modern use of the word by fraternity members goes back for its meaning to the original significance of the term. A "barb" is one not a "Greek," that is, not a Greek-letter man.

L. H. B.

DON'T NEGLECT GOOSEBERRIES.

They Will Give Good Returns if Cared for in the Right Way.

Have you been neglecting your gooseberry bushes? If you have, they are not giving the returns in quality and quantity that they would under the right conditions. Gooseberries are among the best pie fruits, and are not difficult to grow if the right methods are used.

Gooseberries may be planted by cuttings of two-year branches or by layering. The method of propagation recommended by Albert Dickens, professor of horticulture at the Kansas

State Agricultural College, is to bank the soil about the bush and leave for a season, then remove the soil and transplant the rooted branches. These should be planted in a protected place, but not in shade or very poor soil. Since the gooseberry plant bears profitably for about only six years, propagation at such intervals is necessary.

Gooseberries require mulching or cultivation to conserve the moisture of the soil and to kill the weeds. Pruning is as necessary with this fruit as with any other. The berries are born on the old wood, so that the surplus new shoots, and the old wood which is too old to bear, should be pruned out.

Gooseberries may be grown profitably on a commercial scale. One case is recorded in which twenty-six plants in two rows, forty-eight feet long and four feet apart, with the plants four feet apart in the row, yielded three bushels of berries. Selling at 15 cents a quart, which is often the case in Kansas, the gross return from such a plantation would be \$14.40.

EATS 2 TONS OF HAY A YEAR.

Statistics Show the Capacity of a Horse Weighing 1100 Pounds.

How much hay does a horse eat a year?

Some horsemen feed one pound of roughage a day for every 100 pounds of live weight. According to this, a 1000-pound horse would eat 3560 pounds of hay a year, and a 1100-pound horse would eat 4015 pounds, or approximately two tons of hay a year.

In an experiment lasting five months, a 1550-pound horse, doing the usual work, ate 14 pounds of timothy hay a day. A 1300-pound horse, doing medium hard work, ate 13.6 pounds of timothy hay a day for three months. An abundant grain ration, also, was fed. The horses were not allowed in the pasture except Sunday, and the hay that they would have eaten was charged to them.

If alfalfa is used for the hay ration, feed twenty per cent less than the quantity of prairie hay required. A pound of alfalfa contains thirty-five per cent more digestible protein than one pound of shelled corn.

A good ration for horses is a combination of hay, alfalfa, and corn. Clover hay may be substituted for alfalfa if it has been properly cured and stacked. Many horsemen are afraid to use clover on account of the dust in it, which often causes respiratory troubles.

Currants are Scarce in Kansas.

All little boys like jelly, and some of the best jelly Johnny ever stole was made of currants. Very few Kansas boys, however, are lucky enough to get currant jelly, for currants are almost as scarce as banana trees in Kansas. It is impossible to grow currants in sandy soil or in hot, dry soil of any kind. Only one variety, the black currant, is native to Kansas, and this will grow only in cool, moist ground where the vines are shaded. Such places are found along the north side of stone walls, or board fences, close beside some building, or beneath a tree. The plants should be set out early in the spring and cultivated or mulched, both being advisable. The black currant is one of the poorer varieties, but it is the only one that is adapted to all Kansas soil conditions.

The Potato Bug.

The potato bug probably is the greatest drawback to the raising of potatoes, but it is easily controlled if taken as soon as it appears. We use London purple in the dry state, mixing it with flour until one pound of the poison with the flour added will spread over an acre of ground. A good-sized pepper-box is good to use in sifting it over the plants, or a baking-powder can with small holes punched in the top. Apply the dust while the dew is on the vines. One application is all we find necessary.—*Missouri Ruralist.*

Aeroplanes, says an engineering paper, are going up steadily, referring, however, to the price.

WHY NOT HAVE A LAKE?

SMALL PONDS MAY BE MADE ON FARMS AT LITTLE EXPENDITURE.

They Don't Necessarily Have to be Pleasure Spots for the Public—There Could be a Fish Hatchery or Something Else Equally Useful.

Many people outside of Reno county never heard of "Turner's Lake." Not every one in Reno county has, either, for that matter, because in reality "Turner's Lake" is only a pond. In most places a stone could be thrown more than half way across the "lake," and it is scarcely a quarter of a mile in length. The east bank is fringed with swamp grasses and cattails. On the west bank is a grove. A small gasoline-propelled boat—known at the "lake" as the "gasoline launch"—is harbored on the east shore. One or two rowboats of rough design are anchored near by. Off toward the southwest bank there is a small shack—a bathing-house.

ICE COLD SODA POP.

The farmer's daughter sells ice cold pop, and ice-cream sometimes, but this is not generally expected by the visitors at the "lake." Yet with these simple accommodations, picnic parties come from a distance of from five to twenty miles to spend a day. Sometimes they camp there for a week or more.

Lakes of any kind are not very plentiful in Central and Western Kansas. Those with trees near by are fewer. Ponds as large as "Turner's Lake" could be made in many places.

PONDS FOR OTHERS.

"Turner's Lake" shows how much amusement may be added to a farm with a very slight outlay of expense and trouble. Every one would not care to make a pond for a public amusement place, but the family would derive considerable pleasure from it. Such a pond might be made a fish hatchery, or it would be a good place about which to plant trees. Any one who plants a tree is a public benefactor. These trees would serve as wind-breaks, and could also be made into posts, or used as fuel. Fruit trees might be planted around these ponds. Peach trees do especially well on damp, sandy soil.

SHELL SEED-CORN BY HAND.

One Man Can Do Enough in One Day to Plant a Good-Sized Field.

It pays to be careful in shelling seed-corn. Unless you have a large amount to shell, it probably will be best to shell it by hand. It takes only from twelve to fifteen ears of corn to plant an acre, so that a man can shell enough by hand in one day to plant a good-sized field. However, seed-corn can be shelled just as well by a power sheller if the tips and butts of the ears are shelled by hand and all worm-eaten and bad kernels removed.

If this work is done by hand, the quality of the kernels will be seen and the poor ears thrown out. There is no good reason why the remainder of the ear should not be shelled by a power sheller. A corn-grader will sort out the large, ill-shaped kernels and the small ones that the eye might miss, and you will have a more uniform seed, shelled cheaper than you could do it by hand.

Journalism in Jerusalem.

"Many changes have taken place in Turkey since the constitution was adopted, about three years ago," says Doctor Kieferndorf in the *Oesterreichische Wochenschrift*, "and not the least notable of these is the desire on the part of the people for reading matter in the form of newspapers. This is an outgrowth of the freedom of speech and the abolition of the censorship. There is now being published at Jerusalem a newspaper printed in three languages, and bears the name 'La Verite—Truth—Haemeth.' There are weekly and monthly papers also, but they are for the most part known as 'religious' papers, while the new publication is a real newspaper. Truly, Palestine is making progress."—*Milwaukee Free Press.*

A SUMMER SCHOOL

at the Agricultural College
For the Teachers

Spring Term began March 28 and ends June 14.

Summer Term begins June 15 and ends July 27.

Agriculture, Manual Training, and Home Economics

The legislature passed a law requiring all grade and rural school-teachers to pass an examination in elementary agriculture. This law will become effective June 1, 1911.

Do you expect to teach school?

About one-half of the country school-teachers of Kansas will close their terms of school before the opening of the spring term of the agricultural college, March 28. The college, therefore, suggests to these teachers the advisability of the investment of money and time for both the spring and summer terms, giving principal attention to the vocational subjects.

The Courses Offered:

Spring Term:

Home Economics: Domestic Science; Sewing; Dress-making; Home Decoration.

Drawing: Free-hand; Geometrical; Object; Perspective; Water-color and Design.

Manual Training: Two courses in Woodwork; two courses in Blacksmithing; Mechanical Drawing.

Agriculture: Elementary Agriculture; Live Stock; Farm Crops; Stock Judging; Grain Judging; Poultry; Plant Propagation; Small Fruits; Market Gardening; Landscape Gardening.

Education: Methods of Study; Methods of Teaching; School Management; Industrial Education.

The Spring Farm Work

Teachers who enter for the spring term will have an opportunity to observe much of the experimental work conducted at the agricultural college.

The summer term does not differ materially from the courses preceding it. The course in elementary agriculture will be offered during the summer session primarily for teachers who expect to teach this subject in country schools or village schools, and especial attention will be given to methods of teaching elementary agriculture in the rural school or in the grades in the village, with suggestions for laboratory work. Those who have time to take two or more of the other subjects named above will not need to take this course in elementary agriculture.

Expenses

The only fee charged by the college will be the regular incidental fee of \$3.00, which the state law requires to be charged of all students who are citizens of Kansas. Nonresident students will be charged a fee of \$20.00 for the first term and \$10.00 for each term thereafter. Board and room may be had for from \$4.00 to \$5.00 per week.

For further information address

H. J. Waters, President

Manhattan, Kansas

YOU CAN RELY ON PEAS.

SPRING IS THE TIME, BUT THEY'LL THRIVE IN THE FALL.

In Planting, Drilling is Preferable—Dwarf Variety is the Most Successful for an Early Crop—Use Supports Between the Rows.

Peas can be grown very profitably in large or small quantities. They are best adapted to a moderately rich soil of the sandy loam type.

Nearly every garden contains at least a small patch of peas, and the large canning factories have whole fields of them. In fact, peas are grown in every place where agriculture is attempted in any form.

In the northern part of the United States it is best to try to grow peas in the spring; if not then, in the fall; but they are profitable even in summer. In the South they will thrive the year round.

Peas may be broadcasted or drilled, but drilling is preferable. The most economical way to plant peas, so that they may be cultivated, is to drill them in rows. Plant two rows six or eight inches apart, and leave a space large enough for cultivation between these and the next two. Then, if they are climbing peas, one support placed between every two rows will serve for a double row.

There are dwarf and climbing peas,

divided into two kinds: the wrinkled and the smooth. Wrinkled peas are of better quality, in general, but they are more apt to decay when planted early. Dwarf peas, therefore, are more satisfactory for an early crop. For other seasons use the climbing variety, as it is more productive.

EARLY APPLES FOR THE ORCHARD

Varieties That Are Good Both for Home or Marketing Purposes.

Do you have any early apple trees in your orchard? If not, plant some and have more than one kind. Some trees bear one year, some another; certain varieties ripen early, others later.

The earliest kind for green apple pies is the Keswick Codlin. The Dutchess of Oldenburg ripens early and is a good eating apple. The Early Harvest also is a fine eating apple. The Benoni is juicy and tart. The Fanny has a fine quality. The Cooper is a good apple for both marketing and for cooking purposes. It is especially pleasing for dessert when it ripens into a creamy, enamel-like white. The Yellow Transparent is an early apple and usually is reliable.

A sociable man is one who, when he has ten minutes to spare, goes and bothers somebody who hasn't.

THE KANSAS INDUSTRIALIST

Volume 37

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Number 27

WILL NOT SELL BUTTER.

THE SUPPLY FROM THE FARM WILL BE CUT OFF THIS SUMMER.

The Mild Winter Offered no Opportunity to get the Necessary Ice—How a Sanitary Dairy Helps in Keeping Products Sweet.

No butter from the farm to the consumer this summer? That is what is likely to happen. Farmers' wives who have been delivering butter to customers are preparing to sell the cream during the hot weather. This means that no more butter will be made on the farm this summer than will be necessary to supply the family.

The reason for this is the mild winter, which offered little or no opportunity to harvest ice. To buy the ice needed in making good butter and marketing it would reduce the profits to a very unattractive figure.

One of the chief reasons for butter becoming rancid at an early age is the fact that it is not washed thoroughly. If the buttermilk is not washed out it will furnish abundant food for the bacteria, since they thrive on the casein in the milk. And that is the reason that butter makers require so much ice. As long as the butter is kept at a temperature below 50 degrees, the bacteria are inactive. That is why butter often becomes rancid in a short time after it is brought to market. The bacteria begin work when the butter warms up in transit.

If the dairy is kept sanitary throughout, and the butter is worked well, and stored at a temperature of about 40 degrees, it will keep from three to four times longer than butter which is made by a careless housewife.

It is not a difficult matter to keep butter sweet if the dairy is so equipped that the milk can be handled in a sanitary manner from the time it leaves the cow until it is made into butter. For it is during these stages of butter making that dirt and bacteria are likely to get into the milk from the air, from the cow, or from unclean utensils used in handling the milk. If sufficient cream is not obtainable from one milking for making butter, the common practise is to hold the cream until the next skimming.

The cream from the milkings must not be kept so long that it will develop a sharp acid, for that would impart an unpleasant flavor to the butter. Any flavor in the milk will be found in the butter.

"BY THE ENEMY'S HANDS."

A Military Play Will be Given at the College April 27.

"By the Enemy's Hands," a military drama in four acts, will be presented in the college Auditorium Thursday evening, April 27. The cast consists of sixteen members chosen from the cadet corps and several girl students.

Captain Boice has arranged a few military specialties to be given between the acts of the play. A Butt's manual drill by eight cadets, a silent manual sabre exercise, and a duel between an unmounted cavalryman and an infantryman, comprise the specialties. The military band will play.

Tickets are now on sale by student solicitors, or they may be purchased at any bookstore.

CONCERT RATE FOR STUDENTS.

Tickets, Non-transferable, May be Obtained for Only One Dollar.

President Waters believes in encouraging every cultural influence for the students of the agricultural college. He has, therefore, agreed to excuse them from seventh- and eighth-hour classes if they desire to attend the concert, Monday afternoon, of the Minneapolis Symphony Orchestra. Further to induce the boys and girls to hear this excellent organization, a

special rate of \$1 for both concerts, afternoon and night, has been arranged by Manager Heighton.

The concerts of the Minneapolis Symphony Orchestra are a college enterprise, undertaken especially for the educational benefit of the students and faculty. Professor Brown, of the music department, and Professor Beall, of the English faculty, have charge of the tickets. They may be obtained at the Coöperative Bookstore or at Smethurst's music store.

A SUCCESSOR FOR KINZER.

P. N. Flint, of Arkansas, Now Has Charge of Animal Husbandry.

P. N. Flint, of the University of Arkansas, has been appointed professor of animal husbandry in the Kansas State Agricultural College. Professor Flint is comparatively young for such a position, but has an excellent record of things accomplished since he was graduated from the Michigan Agricultural College in 1904. He spent a year on the farm before going to Illinois, where he received his Master's degree in 1906.

Starting as assistant in animal husbandry at the Georgia experiment station, he became head of that department in about a year. He has been at the head of the department of animal husbandry at the University of Arkansas since last summer.

Professor Flint arrived in Manhattan last Wednesday morning.

His appointment fills the vacancy made by the resignation of R. J. Kinzer last fall. Mr. Kinzer left the college to become secretary of the American Hereford Breeders' Association.

MADE HIS OWN ENGINE.

This Student Also Will Install the Electric Lighting Plant.

Not only to install the electric lighting plant himself, but also to run it with an engine that he has made, is the plan of Ray Kiene, a senior student in mechanical engineering at the Kansas State Agricultural College. Mr. Kiene has the engine nearly completed. It is of the three-horsepower, horizontal type, with a 15 by 30 inch base and 30-inch fly-wheel. The castings were bought in the rough and machined in the college machine shops. The engine will be connected to a dynamo to furnish the lights for the house on the home farm.

Mr. Kiene is making another engine, of the twelve-horsepower, two-cylinder, vertical type. He will cast the frame and machine the castings in the college foundry. This will lessen the cost of the engine considerably. The cylinder for this engine, as well as the valves and oil cups for both engines, were purchased. This engine will be used for farm work unless Mr. Kiene needs it for other business.

Either one of the two engines is large enough to do all the average work of a gasoline engine on the farm. By building these engines, Mr. Kiene not only saves money, but also acquires much valuable experience and knowledge.

Around the World in a Day.

The driving wheel of the steam turbine in the college engine-room makes 11,800 revolutions a minute. At this rate this wheel would, if running on a path, travel around the world in a little more than a day. Or, in other words, it would travel nearly 1000 miles an hour. It is a 200-horsepower engine.

Good Roads.

Money spent for good roads is as good an investment for improving the farm as is money put into stock sheds, grain cribs, fences, seeds, or anything else that makes the farm pay.—*Farm, Stock and Home.*

LET THE GIRLS TRY, TOO.

CONTESTS IN BREAD MAKING AND OTHER THINGS WOMEN DO.

Farmers' Institutes Offer Premiums for the Best Canned Vegetables and Fruit—Good Needlework Should Also Receive Recognition.

Girls like to compete for prizes just as much as the boys. There are things also at which the girls excel that boys can not do, such as making bread, canning fruit, and doing all kinds of needlework. In order to see which Kansas girls are most adept at these accomplishments the extension department of the Kansas State Agricultural College is suggesting to the farmers' institutes that contests be conducted with premiums for work done in the home by girls from ten to twenty years old.

Good, home-made bread is really a delicacy. A bread contest is not only easiest and best in many respects, but it will teach also the contestants to recognize the real science of bread making. Girls entering this should be required to bake fifty loaves of bread during the four months immediately preceding the time of the contest; to present one loaf at the time of the institute, baked in a regulation pan; to submit one report telling the method of making, the kind of flour used, the source of the yeast, and how it was perpetuated.

Canned fruit and vegetable contest is interesting and profitable. The prize should be given to the girl showing the best and largest collection of fruits and vegetables, canned, preserved, or pickled, the work having all been done by herself, no preservative being used. Other contests may be on roasted chicken, butter making, and manufacturing cottage cheese.

In sewing there should be exhibits of needlework only on aprons, table linen, and samples of darning and mending. Fancy needlework and the baking of cakes and pies are not of much value when connected with farmers' institutes.

In order that the contests may be carried on with the best results, the committees in charge should have three classes: Class A, for girls fifteen to twenty years old; Class B, for girls ten to fourteen, and a "special" class for girls fifteen to twenty years old who have attended the state institute or any cooking or sewing school for one or two weeks.

THE POWER OF HEAD-LINES.

Shaler Mathews Believes This is the Work That Makes Public Opinion.

"Let me write the head-lines of the daily papers," said Shaler Mathews, of the University of Chicago, a day or two ago, in Lawrence. "Let me write the head-lines and I will make public opinion. The man who shapes the newspaper story yields the most influence in shaping public opinion."

"The analogy between teaching and the work of the newspaper is further evidenced if the teacher accepts the law of the advertising man that his success comes from making people want something in addition to what they already possess. Teachers should look upon themselves as coördinate with the editors of newspapers and others who are creating the great to-morrow that is to be."

FARM TEACHERS ARE SCARCE.

Agricultural Students Are Not Interested in \$1500 Positions.

Kansas has a new problem: Where to get its teachers of agriculture. One thing is certain: At present, not one of the 2300 students in the state agricultural college is at all eager to take that sort of a position. E. L. Holton, professor of rural education, has received sixty-seven calls for teachers of

vocational subjects, which means agriculture. This demand has been created by the law enacted by the last legislature making it necessary for teachers in the grade schools to take examinations in elementary agriculture.

"These positions pay from \$60 a month to \$1500 a year," said Professor Holton this morning. "As chairman of this committee, I have interviewed students until I am tired, but have failed to get any of them interested in such work. The answer has been invariably that they are going back to the farm, to their own homes. I knew that at least 75 per cent of our students were going back to their homes, but I was not prepared for the almost unanimous decision in that respect."

In the last month eight or ten salaried positions as managers of farms, or in other lines of business, outside of Kansas have been offered to students in the agricultural college and have been refused. The interesting part of it is that while the college teaches farm management and so equips the boys to do exactly the thing that would bring them salaries, the boys intend to use the knowledge on their own farms or on the farms of their parents. There is a chance in Kansas for the agriculturally trained teacher.

WANTED: 5000 GIRLS.

That Number Should Enter the Flower-Garden Contests in Kansas.

Girls, 5000 of them. That is the mark set for the number wanted to enter the flower-garden contests that are being organized by the farmers' institutes of the state. Girls are fond of flowers and like to grow them. These contests will show which girls have the best results with their gardens.

Fruitful farms, and prosperous villages or towns, should have beautiful homes. It does not need mansions to achieve this, for where there are well-kept lawns and artistic, though simple, flower beds, the most modest homes appear adorned and attractive.

The contestants have a wide choice from which to plant the beds: Asters, larkspurs, crocus, lillies, daffodils, tulips, daisies, sweet peas, the scarlet sage, dahlias, sweet alyssum, and hundreds of others, all of them offering their sweet fragrance to the air and their individual rare colorings to the yard.

Every town or village must have its own local committee to announce plans, to enroll contestants, to provide prizes and to award them. A good plan would be for the institute officers to appoint a woman in every township to enroll contestants among the girls on the farms and award the prize for the township.

ON THE NEW FIELD APRIL 15.

Here's a List of the 26 High Schools to Be Represented.

The track and field meet of the fifth district will be on the new athletic field of the agricultural college April 15. These high schools will be represented: Manhattan, Chapman, Clay Center, Concordia, Herington, Marysville, Minneapolis, Axtell, Salina, Blue Rapids, Clifton, Delphos, Clyde, Enterprise, Frankfort, Gypsum, Summerfield, Hope, Washington, Waterville, Scandia, Wamego, Alma, Greenleaf, Belleville, and Junction City.

Helping the People.

W. W. Carlson, foreman of the machine shops; B. S. Orr, assistant in power and experimental engineering; A. G. Strong and G. T. Ratcliffe, senior electrical engineers, went to Hays, April 4, to test a newly installed power-plant.

Better Horses Out West.

Two pure-bred Percheron stallions, bred at the college, were shipped to western Kansas last week.

DON'TS FOR THE DINERS

A BOOK ON TABLE MANNERS THAT EVERYONE SHOULD READ.

The Department of Domestic Science Has Printed Rules for Those Who Would Learn the Niceties of Refined Living.

Suppose your husband brings someone home to dinner, without saying a word to you about it in advance, and it just chances that your maid, if you have one, has gone out for the day; what would you do about it?

This is one of the important subjects treated in an interesting little book just issued by the department of domestic science in the Kansas State Agricultural College. But the book discusses other equally vital questions.

It has explicit directions for the young men who are now taking their first scientific instruction in table manners. These directions, prepared by Mrs. Mary Pierce Van Zile, the dean of women, are clear and sensible. A chapter on "Things to be Remembered" should be particularly valuable, because it contains the "tips" about the actions and general conduct of men and women in eating that cannot fail to make life in the dining-room pleasanter and less exciting.

For instance, don't begin talking until you are sure someone isn't about to say grace.

AS TO THE NAPKIN.

Spread the napkin upon the knees with one fold. Don't try to wrap yourself in it and don't put it in your collar. The book doesn't say this in so many words, but that is because the author is considerate of other persons' frailties. It does say, however, that only the lips should be wiped with the napkin, and, in another paragraph, that in unfolding it one should not wave it about the head, or words to that effect. You have all noticed this action at the table.

THE KNIFE AND FORK.

In using the knife and fork, hold them by the handles, not by the blade or tines. Do not gesticulate with these articles.

Do not talk while your mouth is full. No one can understand you, anyway, and it is the proof of ill breeding.

Do not, for goodness' sake, use a piece of bread to get the last of the gravy or sauce. Take your time when you eat. Even in a railway station you usually have twenty minutes, and that is time enough for anyone.

Watch the hostess when you are in doubt and do as she does, unless she, too, is in the dark, in which case just eat.

But it is not the desire here to disclose more than a few of the good things in this little book. It is a valuable addition to literature, seriously, and is worth many, many times the price asked for it.

A STUDENT WRITER'S SUCCESS.

Good Housekeeping Buys Floyd B. Nichols' Story of Table Manners.

Floyd B. Nichols, a member of the advanced class in industrial journalism, has sold a story to the *Good Housekeeping* magazine. Mr. Nichols' subject was the new course in table manners recently founded in the domestic science department upon the request of 100 men seniors.

DAVID STARR JORDAN TO TALK.

A Noted College President Is to Deliver the Commencement Address.

David Starr Jordan, president of Leland Stanford University, has accepted President Waters' invitation to deliver the Commencement Day address for the Kansas State Agricultural College.

THE KANSAS INDUSTRIALIST

Issued weekly during the college year by the Kansas State Agricultural College, Manhattan, Kansas.

PRES. H. J. WATERS Editor-in-chief
PROF. C. J. DILLON Managing Editor
DR. J. D. WALTERS Local Editor

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The typesetting and other mechanical work is by students in the school of printing, of which J. D. Rickman is superintendent. Both these departments are in Kedzie Hall.

Newspapers and other publications are invited to use the contents of the paper freely without credit.

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SATURDAY, APRIL 8, 1911

HOW TO MANAGE FATHER.

You hear much, these days, about the trouble parents have to keep the boys on the farm. Occasionally some kind-hearted soul sounds a note to the effect that, perhaps, the boys do not always have a square deal, that the father, and sometimes the mother, is not so considerate as might be desired. Once in a great while the truth is told about a boy who had to work his way through college, although his father had enough money salted away to pay his expenses, but refused to contribute because of an ostensible desire to make the boy learn the value of a dollar—a fine story to tell the neighbors, who know better.

What is needed, and needed urgently, is a course in father-managing for boys. It is not the purpose here to incite any son to rebellion. There is no conscious desire to instill any ideas that may lessen the respect a boy should have for the Fifth Commandment; but in observing its teachings the son has a right, God-given, to certain inalienable privileges closely allied to the making of citizenship; and the greatest of these is freedom. This freedom need not amount to license, and seldom will be so construed. It means freedom to think and act like a rational, human being, to indulge in some of the social intercourse now becoming an important part of rural existence, to meet persons of his own age and inclinations, to have a day or a few hours in which to exercise his own will within proper restrictions, to participate in the activities of the farmers' institutes, the annual corn contest, the efforts of the younger generation to surpass in acre yields: to go to bed when other human beings do it and stay there until the world is again astir. The idea that a farmer's son must be out while the cows are still asleep, that he shall go about the place rousing out a lot of drowsy horses or mules while the sun is still in China, is a worn-out theory incompatible with modern agriculture, which means good management. Every growing boy is entitled to as much consideration as the member of any labor union on earth, and the sooner the fathers of the land find it out the better for the fathers and the farms.

When father turns out before day-break and begins to rout out the family with his customary grouch, well-oiled and working overtime, a boycott should be announced immediately. It would not take long to convince him that the successful conduct of his property depended upon kind treatment and an occasional moment of relaxation. The old whine that boys are lazy no longer finds favor. Nine times in ten the supposedly lazy boy is merely unable to overcome the natural impulse of immaturity to take his fill of rest, the rest that young legs and arms must have if a day's work in the field is to be done with what Mr. Brandeis would call economic excellence. In other words, no boy who goes to the fields tired and heavy eyed and resentful can or will do a day's work with profit to the employer.

The father who is wise will listen to his boy's views occasionally. He will

restrain the usual desire to break something when told that his son would prize highly the chance to spend a whole dollar in undisturbed enjoyment of the circus or a neighborhood entertainment. He will hark back to the heyday of his own youth when his son pines to see a picture show or to use the buggy or the motor-car for an afternoon in blissful contemplation of a neighbor's daughter. In short, if a father supposes he can drive his children as he drives his mules, day after day and year after year, without desertions from the family ranks, he is mighty mistaken, and he would better skirmish around with a bit of pencil and make a note of it now.

Kansas has farms upon which the partnership, stockholding plan for the children has proved the truth of every contention here set down. A notable example was discovered a year or two ago near Salina. In this instance two boys, 12 and 14 years old, helped their father as much as they were required to do, and afterward put in forty acres of wheat on rented land. They banked several hundred dollars in one or two seasons. The girls were assigned to care for the crab apples and other fruit. The mother had supreme command of the poultry division and the butter—the churn being operated by gasoline power. A five-year-old boy fed a runt pig, faithfully, until it grew to a dignified age and had reared a family of its own. He, too, had money in the bank. Every one of those children talked of "our farm." Their chief happiness was in buying their clothing and their pleasures with their own money. There isn't a happier family in the state, unless it be another managed upon similar lines.

Those children managed their parents. They had a right to speak in the family councils as soon as they knew enough to eat with a knife and fork. The example was valuable, too; it spread to another home five miles away where the family was organized on stock sharing principles, with the happiest results. Those fathers talked to their boys in the morning about the work to be done, and the boys looked forward to it with as much delight as any healthy man or boy looks forward to exertion. And when fall came they tied up their books and went to school.

Those policies can be adopted, and should be adopted upon every farm in the state. It gives a boy a totally different viewpoint to be asked about the management of the land. No man ever made anything by driving a stubborn mule to a watering trough.

THE DRY FARMING STATION.

Two thirds of the farmers in Kansas, apparently, desire a demonstration of one kind or another carried on upon their farms. Probably no program of recent years has appealed so strongly to the men who are eager to advance their agricultural methods. The question now is not: Do the farmers favor it? but rather: Where shall the men to do the work be found? Three or four experts have been engaged and others are being sought.

The big dry farming station at Garden City is certain to blossom in the next year as the result of the appropriation of the last legislature. The United States government co-operates with the state in this enterprise. In the past the station has done little, chiefly because funds were lacking. Now, the head of the agronomy department says, activity is to be resumed; a weather station will be established; irrigation tests will be conducted, and especial attention paid to the crops most likely to be suited to the prairies of western Kansas.

One thing is certain—and it is no recent discovery—if western Kansas is to be permanently settled, every acre of it must be made more attractive to women. You cannot have farms without them, and they will not long remain where there are no trees, no water, no grass, and no flowers. Not, let it be understood hastily, that western Kansas is "shy" all these desirable features; far from it. But it is lacking in many things that it should have, things the federal and state governments, through their agricultural

activities, can supply. It may be

A Golden Text.

Better is an handful with quietness, than both the hands full with travail and vexation of spirit.—Ecclesiastes 4:6.

years before women will hanker for western Kansas or cry for it, but this will not be because the soil of that region is not so good as any other. You can raise anything out there if you have the water, or take care of what you get in the shape of rain. The experts intend to show those that go to the fields with plows how to save the rain that falls as a benediction that grain may grow and flowers bloom where once the buffalo ran.

With the demonstration farm in operation, and Ralph Faxon carrying on the war for concrete bridges and soft water, Garden City certainly should be a lively place.

WHEN A BOY GOES HOME.

Every man owes something to his community. Some never realize their indebtedness, but this is not to be the case with the young man just returning from the Kansas agricultural college.

No man can draw on the soil, profitably, without making some return. Neither can he receive all the benefits of community life without returning something to his neighborhood. The student who goes home to his country town from the agricultural college will not be satisfied with existing conditions.

He will want the stock yards moved from under the eyes of the traveler to the edge of the town. In their stead he will suggest trees and flowers and walks. He will ask the merchants to remove their wooden awnings and adopt canvas. He will ask the implement dealer to exhibit his machinery on a vacant lot instead of in a side street. He will show his neighbors where to plant trees for shade and ornament, and explain the saving in cement walks.

His influence will be extended to the farmers. The regular institutes will be encouraged by his energetic discussions, for the college student is an enthusiastic disciple of his vocational course. Perhaps the town lights are poor and the young man can recommend an effective system. The hitch racks are a nuisance. He will see that a side street affords room and quiet for teams. He will object to horses being fed in the public square, and he will try to have drivers observe the "rules of the road" in the streets.

It is not probable that all these improvements can be effected in a summer, but the combined efforts of a student and a country editor can do much. The student can direct the efforts of those who are desirous of making their town a better place in which to live. He is in touch with the force of men the state employs for that purpose, and can be the medium for putting these workers in touch with a ready field.

O. W.

ANOTHER ONE NAILED.

The next time your doctor—if you have one—tells you not to drink water at your meals, it will be the proper thing for you to give him what the gamins of the street would call the horse-laugh. Drink all the water you need, drink it at your meals, between meals, and get up in the night to drink it if you desire. It won't do a bit of harm. On the contrary, it induces activity of the pancreatic function, which, of course, you understand.

President Waters, of the agricultural college, has just received official information describing the conclusions in very interesting and important tests along these lines in the laboratory of physiological chemistry in the University of Illinois. Dr. P. B. Hawk is the authority. Leaving out the elaborate scientific details, this is what happened:

Two experiments were made, one in which a man drank water between meals and another in which a man drank it at his meals. It was proved, after long and careful observation, that water drinking at meals stimulated gastric secretion, induced activity of the pancreatic function, and de-

creased intestinal putrefaction, all of which, as any normal person knows, is perfectly proper.

In both these experiments the ration consumed was uniform in quantity at all periods. In the one instance the amount of water taken was small, in another large. In the large amount it was increased tenfold, with the result that the food eaten was more completely assimilated than at any other period. Go ahead and drink all the water you desire.

FARMERS' INSTITUTES.

The rapid development of farmers' institutes, says *The Breeders' Gazette*, is no more aptly illustrated than by the fact that when an appropriation was made by congress about six years ago, to enable the Department of Agriculture to appoint a special officer to investigate and report upon farmers' institutes and similar organizations, there were only 2772 institutes in the entire country, with an approximate attendance of 820,000. In 1909, all of the states and territories had institute organizations, and there were held 4926 regular institutes, with an attendance of 2,198,568. There have been also independent and round-up institutes, railroad specials, and other forms of institute activity attended by 710,131 persons, making the total number present at all forms of institute meetings during the year about three millions.

Among the more marked developments along institute lines are the railroad specials, which are now conducted in most of the states. These specials are equipped with illustrative material and provided with a corps of lecturers who address audiences of farmers at the local stations on the lines of the road. One hundred and fifty-five thousand persons were reported in attendance upon these trains during 1909, and had opportunity to hear the lecturer and examine the exhibits illustrating the practical value of the instructions given. No doubt when the figures for last year become available it will be found that there has been no let-up in the popularity of this method of agricultural instruction.

THE LIVE-STOCK CENSUS.

Wonderfully interesting are the facts one reads in the census reports which some good soul in Washington mails, free. For instance, the population of the United States is 92 millions. The country has one cow to every 1.3 persons; one pig to every two, and one sheep for every 1.6 persons. Mules have not increased as one might have hoped. Twenty-two persons will have to toil along with only one of the long-eared helpers. Horses, instead of being driven from the land by an excess of liking for motor-cars, really show no lessening in numbers. The nation has one horse for every five human beings.

The most important news recorded by the census is found in a paragraph announcing, solemnly, that there is only one goat for every 49 persons! The majority of these goats, doubtless, browses upon the bluffs and beetling crags of Hoboken, where was born, in recent times, the classic, if somewhat inelegant expression, "I'll get your goat."

THE INTERESTS.

Science may go on helping the farmers until the cows come home, but it must be careful not to do anything that will interfere with the profits of the "interests." It was quite clearly shown, this week, that Waterglass might preserve a few eggs for a farmer's wife but would fail, miserably, if used upon a commercial scale.

The article telling housewives how to save eggs and so avoid high prices, next winter, had not been out six hours before wholesalers were denouncing it as a dangerous bit of publicity. The very idea of telling anyone how to save money! It reminds one of the walking delegate who objected to Charles Battell Loomis' painting his own house because he did not belong to the Painters' union.

The truth is, if eggs are put into Waterglass the day they are laid it will keep them fresh for months. Several persons in Manhattan use it regularly and thus defeat the well-laid plans of the storehouse egg merchants.

O, Lay Thy Hand in Mine, Dear!

O, lay thy hand in mine, dear!
We're growing old;
But Time hath brought no sign, dear.
That hearts grow cold.
Tis long, long since our new love
Made life divine;
But age enricheth true love,
Like noble wine.
And lay thy cheek to mine, dear,
And take thy rest;
Mine arms around thee twine, dear,
And make thy nest.
A many cares are pressing
On this dear head;
But sorrow's hands in blessing
Are surely laid.
O, lean thy life on mine, dear!
'Twill shelter thee.
Thou wert a winsome vine, dear,
On my young tree.
And so, till boughs are leafless,
And song birds flown,
We'll twine, then lay us, griefless,
Together down. —Gerald Massey.

SUNFLOWERS.

Ministers seldom get any mail, anyway—that they want.

Proof of spring's arrival: Poultrymen are advertising "settings."

Few women are attractive or dignified with their hair in curl papers.

Chanticler, the Chicago News says, has been forgotten in Paris. Nothing to crow about.

The Bell telephone was 35 years old last week. It has added many years to its users, also.

Nearly every town, every community has its Chief Yukeomas—right here in dear old Kansas.

There is only one man in the world whom you never can surpass—the wonderful man your wife might have married.

Another old friend, "Goobers," alias peanuts, appeared last Saturday in *The Wichita Eagle*. This is indeed a sad blow.

Mrs. Margaret Hill McCarter has issued a fair warning that she is about to write another book. Something fine about that woman.

It's all right enough to know a great deal, to be intelligent; but there are times when you'll be loved more deeply if you don't know so much.

Now that Cravens has been finally and irrevocably identified, the newspapers may resume printing the customary agricultural news.

Some one on the *State Journal* uses Jamaica ginger. When Judge Dana decided it was not "booze," a few days ago, the *Journal* printed the story twice in one issue.

The eyesight of Indians is bad, the despatches from Kansas City say, referring to the Sac and Fox nation. They didn't hurt it looking for work, that's a cinch.

Advertise your own state. Don't run column after column about other states' advantages. Not that you love Canada or Colorado less, but you love Kansas more.

"Was to transfer at Salina," said a story in Senator Bristow's paper a few days ago, "but traveler tried suicide in Topeka." The question is: Did Topeka drive him to it or did he fear Salina?

The latest rule is that a man's necktie should match the gown of the woman with whom he walks or drives. Nat Goodwin would have to carry a suit case of ties with him day and night.

Men squander money in different ways. Dr. D. K. Pearson, the philanthropist, gave away his final \$300,000 a few days ago. Frank Munsey, magazine magnate, is to establish a string of newspapers.

Strange, isn't it, that women who shiver and look horrified at the mention of some actresses puff up like pouter pigeons and smile as if they'd found a nickel when you tell them they resemble the said beautiful actress.

Reference to an old scrap-book shows that *The Star* ran a story, six years ago to-morrow, to show the possibility of a woman dressing for \$65 a year. A month ago several papers carried the same story with the price raised to \$75. The cost of living—

If anyone knows of any bird or beast which, under the present law of Kansas, may be shot or otherwise killed for food at any season when a normal person would care to perform the operation, he can hear of something to his advantage by addressing D. 465, this office.

LOCAL NOTES.

The annual Hamp.-Io. egg-roast will be April 15.

Mrs. Susie (Kokanour) Raymond, of Salem, Oregon, a student here in the early '90's, visited the college this week.

T. G. Patterson, assistant in animal husbandry, has been appointed representative of *The Breeders' Gazette* for this district.

Elsie Rogler finished her senior work in the home economics course last week and returned to her home in Cottonwood Falls.

J. C. Cunningham, assistant in horticulture, was the speaker in student assembly Wednesday. "Some New Fruits" was his subject.

The domestic science and the veterinary departments use from eight to ten thousand cubic feet of gas every day. This gas is made at the college gas plant.

The extension of the Manhattan street railway to the new athletic field is now a reality. The work started last fall was stopped by cold weather and was not resumed until this week.

T. G. Patterson, assistant in animal husbandry, was at Dighton, Kan., April 1. He talked before the horse breeders' association and also judged a horse show. Some of the finest horses in the state are at Dighton.

Raymond G. Taylor, instructor in history and civics, gave an interesting talk in student assembly Tuesday about "Some Problems of Municipal Government." Mr. Taylor told of the large enterprises carried on by the cities of the country.

The club house which was moved from the old athletic field to the new grounds is now on its foundation on the northeast corner. Water has been piped to the house and to the south edge of the field. Grand stands and bleachers are being built.

D. M. Wilson, state dairy commissioner, went to Topeka Thursday to attend a meeting of the State Dairymen's Association. A meeting of the creamery superintendents of the state was held the same day. One hundred superintendents were present.

The work of excavating for the swimming pools in Nichols Gymnasium is nearly finished. The excavation for the girls' pool in the east basement is finished. The boys' pool in the west basement is larger. The earth is being used in grading about the building.

Pleasant Crabtree, lecturer on farm management, acted as judge at a stock show at Columbus, Kan., Saturday, April 1. Premiums were offered amounting to \$250. Stock worth \$25,000 was shown. This is the fourth year that Mr. Crabtree has been judge of this show. He is to act as judge for a stock show at Scott City, April 7 and 8.

ALUMNI NOTES.

Rena Faubion, '10, visited college friends the first part of the week.

J. C. Cunningham, '05, and Alice (Ross) Cunningham, '03, announce the birth of a daughter, Margery, April 2.

S. S. Young, E. E. '08, is an electrical contractor and repairer at Coffeyville, Kan. He visited the college this week.

J. R. McClung, '10, visited college a few hours this week. Mr. McClung is in the hardware business at Jewell City, Kan.

Carl E. Rice, '97, writes from Manila that he is studying law in connection with his work in the Bureau of Customs. The new Philippine university begins July 1, and he intends to enter the law school of the university.

GROWS LEGS AS IT PLEASES.

The Crayfish is Never at a Loss for a Limb.

Imagine a creature that can break its leg and grow a new one at its pleasure. This is what the crayfish can do. When in danger, or by necessity, it can cut a leg loose at certain a place and grow another.

The zoölogy department of the Kansas State Agricultural College ob-

tained a crayfish with the eggs attached to her. The eggs hatched and the young molted and freed themselves, but then died for want of food.

Crayfish cannot hear or see well. They get their food by smell and touch. They walk after it and never swim unless frightened. They swim backward, using their tail as a propeller.

They come out to feed at night and remain hidden in the day. When hiding they always face the opening, so they can defend themselves.

They lay a large number of greenish eggs, which are attached to the swimmerets. These the mother keeps in motion to aerate the eggs. After they hatch they still cling to the mother until after they have molted twice. Then they free themselves and live upon other larvae.

THE CONCERT PROGRAMS.

Two Exceptionally Excellent Entertainments for the College Students.

Here are the programs for the two concerts, next Monday, of the Minneapolis Symphony Orchestra:

MATINEE, 3:30 P. M.

March Militaire.....Schubert
Overture, "Merry Wives of Windsor"....Nicolai
Cello Solo—"Andacht" (Devotion)....Popper
Carlo Fischer

Unfinished Symphony in B Minor....Schubert
Soprano Solo: "Ave Maria" from "Cross of Fire"....Bruch

Lucille Tewksbury

Three Characteristic Sketches from "Nutcracker" suite.....Tschaikowsky

Harp Solo: "Merch-Megan" (Welsh Air) Thomas Henry J. Williams

Waltz: Stories from Vienna Woods...Strauss

EVENING, 8:15 P. M.

Overture—"Egmont".....Beethoven
Violin Solo: "Fantaisia Appassionata"....Richard Czerwonky

Two Movements from Symphony "Pathétique".....Tschaikowsky

Bass Solo: Prologue to Pagliacci...Leoncavallo

Marcus Kellerman

Valse de Concert.....Glasounow

Intermission

Contralto Solo: Aria from "Le Prophète".....Genevieve Wheat

Symphonic Poem—"Danse Macabre".....Saint-Saëns

Tenor Solo: Arioso from "La Bohème"....Puccini

Charles Hargraves

Hungarian Rhapsody, No. 2.....Liszt

Original Harp Cadenza by Henry J. Williams

LINCOLN AS A FARMER.

The Effect of Thorough Cultivation Viewed by the President.

Shortly after he was defeated by Douglass in his contest for the United States senatorship, Abraham Lincoln delivered an address before the Wisconsin Agricultural Society, at Milwaukee. Speaking of thorough cultivation, he said:

"The effect of thorough cultivation upon the farmer's mind, and in reaction through his mind back upon his business, is perhaps quite equal to any other of its effects. Every man is proud of what he does well. No man is proud of work poorly done. With the former his heart is in his work, and he will do twice as much of it with less fatigue; the latter he performs a little imperfectly, looks at it in disgust, turns from it, and imagines himself exceedingly tired—the little he has done comes to nothing for want of finishing."

GET A WHEEL HOE.

A Back-Saver That Does Excellent Work in the Garden.

Don't hesitate to plant a large garden. Don't worry about the hoeing. Wait until the plants begin to come up, and then buy a wheel hoe. It will do the work much faster and easier than the common hoe. It resembles the push hoe, or scarifier, as it is sometimes called. The wheel regulates the depth and eliminates the stooping, which is so tiresome in using the common hoe.

A wheel hoe should be used often. It is a time-saver in the long run, since it does rapid and effective work. The advantage of its frequent use is that it maintains a surface mulch and kills the young weeds before they get old enough to sap the ground of water and plant-food.

Sign Your Contributions.

No contribution will be considered by the editor of THE KANSAS INDUSTRIALIST unless the author's name is signed. If it is desired that the name be omitted the request will be respected.

HAVE A PORTABLE PEN.

HOGS DO BETTER IF YOU CAN MOVE THEIR HOME WHEN NECESSARY.

It Will be Easier to Check Disease Among the Animals, for the Sick Ones May be Isolated—For Summer Coolness.

Make your hog houses portable and move them as often as possible. Disease among hogs can very often be prevented in this way. Where many animals are housed continually in one house, and fed in or around that place, the surroundings are sure to become more or less unsanitary.

On the average farm the hog house receives very little attention. It is never cleaned; the same old bedding is left in it from year to year. The dust that accumulates affords an excellent place for bacteria to breed, and is often a source of disease. If sickness of any kind breaks out in a herd, every part of the hog shed should be cleaned and disinfected, because the germs often remain in the dust and refuse for a long period. If other hogs are kept in the same place without cleaning or disinfecting, they are likely to get the same disease.

A portable hog house can be put wherever desired, especially if some of the hogs are sick and it is necessary to keep them separated from the others. It is the most natural and sanitary house and has been used successfully at the Kansas State Agricultural College.

A hog house should be on a high, dry site, preferably on one that is somewhat sandy, so it will drain well. It may be a little colder in winter, but it is much cooler in summer. In Kansas it is just as important to have a cool place in summer as a warm place in winter.

Portable hog houses should be moved occasionally to a fresh piece of ground. Feeding the hogs at different places avoids unsanitary conditions. In houses where the hogs are fed on the floor, a part of the floor always is wet, and the entire building is disagreeable. In the small houses the hogs are cleaner and are more thrifty; the hogs will not gather in one shed during cold weather and pile up. This often results in loss by smothering those at the bottom of the pile. Portable hog houses usually are built to accommodate from four to six mature hogs, or ten to twenty shoats.

Military Department.

Kansas State Agricultural College,
Manhattan, Kansas.

March 31, 1911.

Spring term, 1911.

Order No. 3.

In view of the annual inspection by the War Department, Tuesday, April 18, 1911, no excuses will be recognized for failure to report for duty at the regular drill hours until after inspection.

Special attention must be given to personal appearance on inspection.

Complete uniform, black shoes, and white gloves will be worn.

Rifles and equipments must be free from dirt, oil or rust, and belts must be blacked and brass parts polished.

Cadets are enjoined to make every effort within their power to raise the efficiency of the corps to a creditable degree for the coming annual inspection.

By order of Captain Boice,

Commandant.

E. Claeren,

Assistant to the Commandant.

FOR THE EASTER TABLE.

Spring Flowers and Simple Decorations That Make the Meal Better.

Always use flowers suggestive of spring in planning table decorations for Easter.

A simple decoration for this season is a centerpiece banked with yellow tulips, surrounded with dainty sprays of white spirea and maidenhair fern, or a centerpiece of white narcissi with green leaves, and candles placed at the corners of the centerpiece, with shades of green.

For more elaborate decorations, use as much green as possible about the room, using feathery ferns and palms.

Have the choicest of linen. For a centerpiece, mound not too high, and loosely, "daybreak" carnations. Surround these with loose bunches of violets, using all shades; encircle the whole with maidenhair ferns. At the four corners of the centerpiece place candlesticks with shades of cut silver filigree, lined with pale pink, to represent daybreak, edged with violet fringe. At every place is a tiny bouquet, a miniature of the centerpiece. Use small silver filigree dishes for the salted nuts, olives, and pale pink bonbons.

MENUS FOR EASTERTIDE.

Three Meals That Will be Appetizing, With Eggs as Features.

Eggs are popular at Easter, hence these menus. Three egg recipes that you will find worth while also are given this week.

BREAKFAST		
Fruit	Cream	
Corn Flakes		
Eggs in Nests	Toast	
	Coffee	
		DINNER
		Egg and Sardine Canapes
		Roast Chicken
		Mashed Potatoes
		Giblet Gravy
		Spinach, garnished with egg
		Radishes
		Bread
		Butter
		Cottage Cheese Balls
		Wafers
		Imitation Poached Eggs
		SUPPER
		Egg and Celery Salad
		Potato Cakes
		Hot Biscuits
		Chocolate
		Baked Custard

Eggs in Nests.—Separate the white of an egg from the yolk. Beat the white stiff and dry; put it in a cup or small bowl, making the top of it a hollow the size of the yolk; into the hollow slip the yolk. Cook in a covered sauce pan containing boiling water until the white is firm (about 2 minutes). Serve in the cup.

Egg and Sardine Canapes.—Cut two hard-boiled eggs into halves, separate the whites and yolks, finely chop the whites and rub the yolks through a sieve. Remove the bones and skin from 4 sardines, add half the sifted yolks, mix to a paste with a little oil from the can, and season to taste with salt, cayenne, and lemon juice. Cut thin slices of bread into small rounds with a biscuit cutter, sauté in fresh butter until a delicate brown on both sides. When cool, spread with the sardine paste, decorate about the edge with the chopped whites, and in the center put a little of the sifted yolks. These make attractive as well as delicious appetizers.

Imitation Poached Eggs.—Put round pieces of sponge cake on each plate and place in center of each, half of a well-drained apricot, round side up. Add to one cup of the juice from the can the juice of one grapefruit and one orange and $\frac{1}{2}$ cup of sugar. Cook this with one teaspoon of dissolved gelatin and strain. A few pieces of grapefruit should be put under the apricot and a spoonful of this syrup poured over each one. Beat the remainder of the syrup until it begins to stiffen, then add the stiffly beaten whites of two eggs and pour it around each apricot, and serve very cold. Add a little whipped cream to the syrup.

RUN THE HOUSE BY RULE.

The Successful Housekeeper is She Who Plans Her Daily Work.

The successful housekeeper is she who plans her work. If it is hard to remember the work intended for the day, keep a memorandum hung up in your kitchen. Some of the happiest housewives are the ones who arrange their daily work with the time and tack it up in their kitchens.

The woman who never plans her work is always busy. Often the beds go unmade and the dinner is late.

The economical housewife makes out her menus for the week. This method enables her to use up scraps and leftovers. It also gives variety to her meals and gives her more chance to look for bargains.

If you never have tried running the house by rule, try it. You will find that you will have more leisure, and still have your work done much better.

WATCH THE HOTBED NOW

APRIL IS THE GARDENER'S BUSY MONTH—SUDDEN CHANGES.

A Straw Mat, Some Burlap, and a Few Boards Should be Handy—You Never Know What's Coming, Rain or Snow.

April is the busiest month for persons handling their vegetables and small garden plants in the hotbed. The closest care and watchfulness is necessary now against sudden rains, hail, and frost.

A mat, made of rye straw, serves as a good protection against sudden frosts. This should be, in turn, covered by an old carpet, boards, burlap, or even several gunny sacks to insure protection from rain. If you have any plants outside, it would be a good idea to give them protection at night against frosts. Some of the vegetables can stand a light shiver; radishes, lettuce and peas may pull through all right. But there are other things that will die promptly at the first cold wind. Several layers of folded newspapers will save them. When the sky is clear in the evening, at this time of the month, don't forget that frost is more than likely to come.

SAVE YOUR CHEAP EGGS.

PRESERVED, NOT "STORED," THEY ARE FRESH WHEN PRICES RISE.

A Solution of Waterglass Kept Eggs Unspoiled at the Agricultural College for Eight Months—How the Trick is Turned.

Want to save a little money on eggs next winter? They are only fifteen to sixteen cents a dozen now; why not keep a supply fresh for the time of high prices; not storehouse eggs, mind you, but fresh in another way? You can do it by putting them in Waterglass, or sodium silicate.

Eggs put into Waterglass at the Kansas State Agricultural College, last August when the weather was extremely warm, were used last month, March, 1911, and were found to be in excellent condition. No one would ever know they were back dates. They were gathered daily and at once put into the solution.

GATHER THEM NOW.

March, April, and May are the best months in which to preserve eggs. Most of the cold-storage eggs are gathered in April, but Waterglass eggs can be preserved any month. It is the best method for the farmer or housewife who desires to keep forty or sixty dozen through the winter. Here is the secret described by F. S. Jacoby, of the poultry department at the agricultural college.

The receptacle used should be either wood or stone. A ten-gallon, earthenware jar will hold about thirty-three dozen eggs. Place the eggs in the vessel the day they are gathered. The fresher the egg the better it will keep. Be careful not to crack any of the eggs in placing them in the jar, as they will spoil and cause trouble. Use only clean, unwashed eggs. There is a thin coating on the outside of the egg which aids in sealing the pores of the shell. When the egg is washed this coating is removed.

With one or two dozen eggs as a beginning, a 10 per cent solution of Waterglass may be prepared. To nine gallons of boiled water add one gallon of Waterglass. After the mixture is cold it may be poured over the eggs. Use enough liquid to cover the eggs. From day to day more eggs may be added and also a sufficient quantity of the liquid to keep them submerged. The eggs should not float. When the jar is full the liquid should be one half inch above the top of the eggs. Place a large plate or a round, wooden board over the eggs to keep them submerged.

IN A COOL PLACE.

The jar should be kept in a cool place, preferably the coolest spot in the cellar. Tie a piece of oil paper over the top of the jar to prevent evaporation of the liquid. The eggs may be removed as needed one by one, and should be washed in cold water. It is not advisable to use the same Waterglass two seasons. Sometimes an egg will become broken and decompose. If it is not removed within a certain time it is likely to cause other eggs to spoil; consequently, it is a good idea to examine the jar every two or three months to see that no eggs have spoiled.

The practice of preserving eggs in salt is quite common. The one objection to this method is that the contents of the egg evaporate and cause it to lose its flavor. Lime water has been used to some extent, but limed eggs have a flavor that is easily detected and quite objectionable. Bran, sawdust and other materials are used for packing eggs, but none is equal to Waterglass. This solution is so easily prepared and so effective that it commends itself to the farmer who desires to keep his summer eggs for winter use, or the town housewife who wishes to economize on her egg bill. Buy the sodium silicate from any drug store.

CARE OF THE VINEYARD.

The Trellis Systems, Either of Which Must be Used the Second Year.

Use a two-year-old grape-vine for setting, unless a one-year vine has made a vigorous growth. During the

first season let the vines grow upon the ground. Begin training the second year, as that year's growth of wood bears the next year's crop.

The trellis systems most in use are the three wire and post, or wire-fence trellis; and the Munson horizontal arm. The Munson trellis consists of posts to carry a cross-arm, eighteen inches long, bolted to them about five and one half feet from the ground. A wire is stapled to the post about a foot below the cross-arm. The other wires are placed at the ends of the cross-arm.

Ease in picking makes this form of trellis popular, as the vine can be trained to distribute its foliage over a large surface. Where the grapes do not ripen evenly the Munson trellis should have a thorough trial.

If it is to be used, at the end of the first season prune the side branches of the one and in some cases of both canes, which, during the second season of growth, produce the canes for the next year's crop. When a single cane is fastened to the central wire the season's growth may be expected to produce good canes extended in every direction from the vine.

Summer pruning is necessary for best results. If the vines can be shortened at intervals it is better than just once. The pruning during the dormant season may be done any time after the leaves fall until early spring.

For the wire-fence trellis a minimum of old wood is kept. In this system four to six canes of the preceding year's growth are retained, their length depending upon the age and vigor of the vine, usually from three to four feet long. These canes generally produce four lateral branches apiece, on which the fruit is grown.

THE CUCUMBER "WHITE PLAGUE"

The Sciara Worm and the Manner in Which to Abolish It.

Another "white plague" has arrived, and this time it is the cucumber that suffers. This pest, familiar to those who grow cucumber plants under glass, is the Sciara maggot (*Sciara-inconstans*). It is a slender, white worm with a shiny, black head, and measures not more than a quarter of an inch. It lives in the soil among the roots of the young plants. Its custom is to gnaw the rootlets. After a plant is attacked it makes little or no new growth and in its sickly condition produces few if any cucumbers. The leaves turn brown and the plants wilt in the sun.

The adult of this worm is known as the fungus gnat. It is a very small fly and lays its eggs in fresh horse manure. It is through the fresh manure that these pests are introduced into greenhouses. The use of old manure rather than fresh will keep them out. Should they appear, water in which tobacco has been soaked should be poured about the roots of the affected plants.

Certain cucumbers seem to be immune to the attacks of these worms. Tests made indicate that the variety known as the Davis Perfect is not subject to the attacks of the maggots.

A New Strawberry.

An absolutely new strawberry, large in size, delicious in taste, and possessing great growing-qualities, is the latest creation of Mr. Burbank. After years of labor and experiment he has, it is reported, perfected his new type "the Patagonia," and has formally announced his discovery to the world. Some of these berries weigh an ounce apiece. They are deep scarlet in color, with firm, pink flesh, and are expected to revolutionize the production of strawberries.—*The Farm World*.

Why Boys Leave Home.

He told his 12-year-old son to milk the cows, feed the horses, slop the pigs, hunt up the eggs, feed the calves, catch the colt and put him in the stable, cut some wood, split the kindlings, stir the cream, pump fresh water in the creamery after supper, and be sure to study his lessons before he went to bed. Then he went to the farmers' club to discuss the question, "How to Keep the Boys on the Farm."—*Lindsborg Record*.

It's Time to Talk About Corn, Boys!

The Contests for 1911 have been planned

Two Big Features for the Year!

An Acre Yield; Honor Roll
A Five-Acre Yield Contest

The annual circular is out; the Farmers' Institutes in 105 counties have them. Get started!

Five Thousand Boys were entered in 1910! How many will try this year?

Four Sets of Prizes!

The usual classes, a Special, and the Extra Inducements for Big Yields.
You might get a trip to the State Institute, next December, when the Corn Show is on.

Four days of corn and stock judging. Four days of helpful talks.

Think it over, Boys.

The general contest will be limited to boys between ten and twenty-one; Class B, boys from ten to fifteen, and Class A, boys from fifteen to twenty-one. Boys who will be fifteen years old by July 1, 1911, may be admitted into Class A.

Can you produce 75 bushels an acre?

Can you produce 60 or 40 bushels?

Every active Kansas boy ought to win under one of these classifications.

Address, for further information,

J. H. Miller,

Superintendent of Agricultural Extension, Kansas State Agricultural College.

SPUDS TO RUN THE PLOW

ALSO, THEY WILL FURNISH POWER, SOON, FOR THE FARM ENGINE.

There is 72 Cents Worth of Denatured Alcohol in a Bushel—A Distillery Might be Conducted by a Farmers' Co-operative Association.

Culled potatoes will be furnishing the power for the gang plow and the engine on the farm before many more years go by.

A bushel of culled potatoes is worth fifty-six cents. Turned into denatured alcohol they would be worth seventy-two cents. The process of extracting the alcohol is not one that every farmer can carry on, but the alcohol is there all right.

Alcohol is produced by the fermentation of sugar. Potatoes contain starch that may be converted into sugar by the addition of malt and then fermented. The potatoes are steamed until the starch is cooked thoroughly. Then the malt is added. When the starch has been converted into sugar a yeast mash is added and the sugar is fermented. What is left from the potato mash can be fed to cattle. Experiments have proved that the mash has a high feeding value.

Denatured alcohol is used for heating and lighting, in chemicals, in varnishes, in explosives, and as a fuel for engines. For some years the tax laws were such that alcohol was too expensive as fuel for engines. For this reason machinery has not been adapted for using denatured alcohol. But it is coming into use.

The United States Department of Agriculture has issued a bulletin recently on this subject. Denatured alcohol is being extracted from potatoes in other countries with good success.

A distillery for this sort of work might be conducted by a farmers' co-operative association or as a private enterprise. A plant with a daily capacity of 8000 pounds of potatoes would cost approximately \$12,000.

SMOKE TURNED TO USE.

FUEL ECONOMIZER USED AT THE STATE AGRICULTURAL COLLEGE.

A Large Amount of Heat is Taken From Hot Gases—The System Now Employed is Explained in Detail.

Even smoke is useful. When you see it issuing from the chimneys at the Kansas State Agricultural College, do you know that a great amount of heat has been taken from the hot gases? It has been used to heat the water about to be pumped into the boilers. This is done with a fuel economizer.

The economizer is a number of cast-iron pipes about four inches in diameter and from nine to ten feet long. These pipes are connected in a continuous system, folded back and forth so as to occupy the least possible space. They are enclosed in a case, and through this the hot gases pass on the way to the chimney. A fan in the flue overcomes the objection to the draft offered by the pipes. These pipes would soon become clogged with soot were it not for automatic scrapers that pass over them at regular intervals.

The cold water is taken into the pipe at the end farthest from the furnace and taken out at the end where the gases enter.

The temperature of the water is raised to nearly 250 degrees by the gases in passing through the economizer. The gas, upon leaving the furnace has a temperature of approximately 500 degrees. The water in the economizer is prevented from forming steam by the high pressure on it in the pipes.

The steam that has been used to drive the piston might be used also to heat cold water. But at the agricultural college this is returned to the low-pressure boilers. These have a pressure of from ten to fifteen pounds. The steam from these is used to heat the college buildings.

Lo, the Poor Farmers!

The total value of the farms reported at the twelfth census was about 20 billion dollars, more than double the 9 billion 800 million dollars aggregate capital invested in manufactures. There is reason to believe that the thirteenth census tabulations will show the present value of the farms of the United States is approximately 50 billion dollars.—*The Farm World*.

Cheese as a Food.

Cottage cheese, or cheese made from partly skimmed milk, is cheaper even than the American or Cheddar cheese. The first costs about one third as much, and the partly skimmed product about two thirds as much as the so-called "full cream" cheese. Practically the only food product that rivals cheese in food value and cheapness is dried beans.—*U. S. Bulletin*.

THE KANSAS INDUSTRIALIST

Volume 37

Kansas State Agricultural College, Manhattan, Saturday, April 15, 1911

Number 28

STORE YOUR OWN GRAIN.

FARMERS CAN AFFORD TO BUILD AND OPERATE PRIVATE ELEVATORS.

The Owners Will be Independent—When Prices Are Low There Will be a Place Where Wheat May be Stored.

Can the farmer afford to build and operate his own elevator? L. A. Fitz, in charge of the department of milling industry at the Kansas State Agricultural College, says "Yes." If the farmer raises enough grain, say 400 to 1000 acres, he can afford an elevator and make money on the venture.

The farmer who owns an elevator is most independent of others. Such an elevator could be built best on the farm. It need only be large enough to hold all his grain. A dumping pit, walled with cement, a gasoline engine for elevating the grain, feed grinders, and special machinery for separating and cleaning the grain are essential. It would be a labor saver, as it would dispense with the moving of grain by hand.

IF THE PRICE IS LOW.

If the price of wheat is down, the grain grower cannot afford to sell his grain, but without an elevator or some other dry storage place it would be in danger of getting wet. Perhaps his grain is mixed, some hard, bright, uninjured grain, and some poor grain. If he takes it to the regular commercial elevator, he is paid for No. 2 or mixed grain. If he owns his own elevator, he can, at his leisure separate the poor grain from the good, getting the top price for the best and a second-rate price for the poor, and not have to take a second-rate price for all his grain.

Some persons may ask: Why can't this all be done in a good granary? Why go to the expense of an elevator? Suppose the farmer wishes to store his grain and finds it damp. If he has any quantity of it, it will be impossible, almost, to keep it from heating and becoming musty. If he has an elevator, the grain can be moved from bin to bin by machinery and all chances of injury removed.

SOON PAID FOR.

A properly equipped farm elevator will cost money—but every year the Kansas wheat grower sells thousands of dollars' worth of wheat. A saving of a few hundred dollars a year would soon pay for such an outfit. The building may serve other purposes, too. If a gasoline engine is used in the elevator, the power can be carried, by shaftings, for some distance and used to operate other machines. Even a portable engine can be used for elevating the grain, and also be invaluable for other farm work. A feed grinder can be installed.

Large granaries, feed mills, grain separators, and similar things are all required on the large grain farm. Why not combine them and have an up-to-date farm elevator and thereby be independent of weather, price, and storage bills?

THE SYMPHONY CONCERT.

An Excellent Entertainment Given by the Minneapolis Organization.

No more appreciative audience could have been desired for an exceptionally high-class entertainment than heard the Minneapolis Symphony Orchestra, Monday night, in the college Auditorium. During Richard Czerwonkey's violin solo, the "Fantaisia Appassionata," by Vieuxtemps, the thousand or more auditors seemed completely under the musician's spell. Even the most delicate passages, so often marred by the moving of feet or hands or programs, were heard in every part of the Auditorium. The proof of the player's consummate skill was shown when not a sound was

heard from the audience until Czerwonkey had seated himself at the end of the number, and then he was obliged to respond to two encores.

The ensemble work of the orchestra was excellent, but the vocal numbers might have been far more effective if Emil Oberhoffer, the conductor, had arranged a somewhat more subdued accompaniment. This was especially noticeable during the arioso from "La Boheme" and the Rigoletto selection, both sung by Charles Hargreaves, a tenor of quality but limited volume. The prologue from "I Pagliacci," and "Danny Deever," by Marcus Kellerman, baritone, were better able to comprehend against the orchestra's attack.

Miss Tewksbury, not on the bill for the night concert, responded to a request from friends and sang two numbers charmingly. Miss Genevieve Wheat gave as a contralto solo the aria from "Le Prophete," of Meyerbeer. The original harp cadenza of Henry J. Williams, interpolated in the Hungarian Rhapsody No. 2, was very much appreciated.

IS ASSISTANT PROFESSOR.

P. N. Flint Succeeds F. G. King in the Animal Husbandry Department.

In last week's issue P. N. Flint was announced as the successor of Professor Kinzer in the department of animal husbandry. Professor Flint succeeds Professor King in that department. His rank is that of assistant professor. President Waters is head of the department of animal husbandry.

THE WORLD'S VOICE.

How W. C. Connelly, of the Associated Press, Views Newspapers.

W. C. Connelly, Jr., manager of the Pittsburgh district of the Associated Press, said, recently, to the Americus club in Pittsburgh:

"The newspaper of to-day is the multiplied echo of the world's voice. It is not one of the wonders of the world, it is all the wonders of the world combined. It is the greatest power for good that history has ever known, though now and then some foolish or fanatical individual declares it to be the inspiration of the devil, an illustrated and illuminated guide to the underworld."

"There is not a business or profession in the world having in it men possessing more intelligence, energy and bravery or where you will find more enthusiastic workers. If one gets the news gathering germ in his blood he probably never fully recovers from it."

To Exercise Christian Influence.

That one need not be a minister to exercise a Christian influence, is the opinion of Guy V. Aldrich, western secretary of the student volunteer movement. Mr. Aldrich was in Manhattan this week and spoke in student assembly. The graduate of a college, whether he has received an agricultural or a technical education, he said, could aid in spreading Christianity wherever his work might be. Mr. Aldrich spoke of the many good opportunities in foreign countries for educated men.

It Certainly Did Blow.

The wind, Wednesday, had an average velocity of 36 miles an hour. According to Professor Hamilton, of the physics department, this is the strongest wind this year for this part of the country.

Will Go to the Philippines.

Ray Kiene, a senior mechanical engineering student, will take charge of a manual training school in the Philippine Islands as soon as he is graduated.

AT THE EDGE OF TOWN.

HOW THE MEMBERS OF THE SIMMONS FAMILY ENJOY THEMSELVES.

No Close Quarters in Their Suburbs "Father" Sets the Grass-Cutting Style for Everyone in the Neighborhood.

The Simmons' live in the suburbs of a large city. Once their home was a two-by-four flat in the down-town district, conveniently close to Frank's office. And those were the days that everyone wore a grouch, and money in the savings bank was as easy to comprehend as the fourth dimension. Now they remind one of those "before and after taking" pictures; but neither Frank nor his wife seems to know just why things are so different.

They own their home now; they paid off the last installment several weeks ago. There's plenty of room in the house. It is set far back from the street, and somehow gives an impression of breeziness. There's a good lawn, and every other Saturday when Frank comes home from work the family gathers on the front porch to watch him cut the grass. Mrs. Simmons critically inspects the blades of the mower, and usually decides that they are becoming dull. The boys, one four and the other going on eight—they'd resemble their daddy if it weren't for their mother's eyes—rush all over the place picking up stray bits of paper and leaves. Frank always insists that he is an artist at mowing a lawn. Indeed, there isn't a neighbor near with a good lawn who didn't learn the trick of mowing from him—so Frank says.

There's a garden in the rear, also, and a chicken yard and a cow. Of course, Frank can spade up the garden every spring, and no one objects to his bedding the cow at night; for these things don't require the more delicate feminine touch. But when it comes to planting the seeds or milking or gathering the eggs—that's something that must be done just so; and it would never do to allow Frank to meddle with these things. And the chickens appear to enjoy their grain better if the youngsters scatter it for them. Funny, isn't it? But it's the truth, as Mrs. Simmons will tell you.

In the evenings, occasionally, they "go out." You'd be surprised to find what delightful people live in that one suburb. And then, if you call on almost any neighbor, the chances are you can learn of some new fertilizer, or something, that will be the exact thing for the lawn or garden. And, also, you can give him advice about the way to plant his back-yard cherry trees; your wife will be sure to know an interesting recipe for preserved pears, and probably borrow a new shirt-waist pattern, that will turn out simply stunning. Altogether, you are sure to spend a most enjoyable evening in the suburbs when you call.

FOR A FIVE-ACRE YIELD.

A Prize of \$50 Offered by a Fort Scott Association.

The Industrial Association of Fort Scott has notified J. H. Miller, superintendent of the extension department, that a prize of \$50 is to be offered for the highest corn yield on five acres under the conditions described in the department's recent contest bulletin.

The "Five-Acre Yield" feature of the corn contest, this year, is attracting much attention.

ITS FAME IN LONDON.

The Course in Table Manners is Approved by the English.

Commenting upon the new course in table manners in the Kansas State Agricultural College, the *New Age*, a weekly periodical in London, said:

The consciousness of ignorance is

the beginning of wisdom. These Kansas students are certain to win.

Henry Ward Beecher once said: "Clothes and manners don't make the man, but when he is made they improve his appearance." Now most of the students at Yale and Harvard seem to think that clothes make the man, and very little thought is ever given to manners; and the smart young snobs of the Eastern colleges will howl in derision at the hundred braves who want to know how to hold a fork, wrestle with soup and sample dessert in the very best and most civilized fashion. Nevertheless, I bet on the noble hundred of the Kansas State Agricultural College, for if it came to fighting with fists or pitchforks, twenty-five Kansas men would clean out fifty from Harvard or Yale; while if it came to a question of patience, perseverance, originality, and native strength of character, I should still put my money on Kansas.

THE STORY OF KANSAS.

Raymond G. Taylor to Write a Syllabus of the State's History.

The Mississippi Valley Historical Society, realizing the importance of the teaching of state and local history in the schools of the country, has appointed a special committee to make a report on the subject. Besides a statement of the present status of state history teaching in the schools, and recommendations looking toward the improvement of the work, this report will contain a syllabus, or working outline, of the state history of several of the more noted states of the Union. The report when completed will make a considerable volume. It will be placed in the hands of history teachers in the high schools all over the country. Raymond G. Taylor, instructor in history and civics in the Kansas State Agricultural College, has been asked to prepare the syllabus for Kansas history and has agreed to do the work.

HAVE SOME WATERCRESS.

It is a Delicious Vegetable and has a Commercial Value.

If you have a spring or a shallow stream on the farm, or in the garden, you can grow a delicious salad vegetable, watercress. It grows in shallow, running water. The nature of the work immediately will attract the attention of a boy, and he gladly will set out and care for the aqueous plantation. Obtain some freshly cut tops or roots or some seed of the watercress and scatter in the water or at its edges. It soon starts growth and spreads rapidly. There is a market for it in the cities, where it sells in bunches worth 20 cents to 60 cents.

TELLS ABOUT SPRAYING.

Professor Cunningham Has an Article in the Mail and Breeze.

"When, Why, and How to Spray Apples" is the subject of an article by J. C. Cunningham in the last issue of the *Farmers' Mail and Breeze*. Professor Cunningham has shown by examples the profit in fruit-growing and the added profit when the trees are sprayed properly. The machinery to be used in spraying is explained and the cost given.

An illustration of the average yield to the tree shows that spraying increases the yield two or three times.

Maybe it is, But—

Some farmers declare that it is cheaper to hire men to run the farm than to buy machinery. Maybe it is, but nobody can prove it. Besides, the machines never go to town Saturday and fail to come back Monday, but are always right on the job when needed. And another thing—the wife does not have to cook and wash for them.—*The Farm World*.

LET THE WATER WORK.

HOW A STREAM ON THE FARM CAN BE CONVERTED INTO ELECTRICITY.

Adequate for Lighting Purposes, for Heating, and Even for Cooking—Stationary Machines May be Run by it, Also.

The water-power of a small stream, when converted into electricity, will furnish enough power to light the whole farm, heat the house, and do the cooking by using resistance coils. And besides, it will furnish power for all stationary machines—pumps, feed grinders and carriers, corn shellers, churning, and in fact any work which may be performed with stationary power.

The expense of machinery necessary for converting the water-power into electricity depends on the electrical power desired. A one half horse-power dynamo is large enough for the ordinary farm. It will furnish enough electricity for sixteen incandescent lights of sixteen candle-power each. The electrical department of the Kansas State Agricultural College will advise all those who wish to know about the installation of an electric system from water-power.

Although the first expense of the dynamo and turbines is considerable, yet the cost of operating is comparatively nothing. Water-power is most practicable on the large farms and stock farms. The saving in the cost of grinding feed will be lessened several hundred dollars a year, and the expense of operating the farm can be lessened in numerous other ways.

EAR-WORMS GET TOO MUCH.

Three and One Half Per Cent of the Corn Goes to Loss.

In Kansas, 3½ per cent of the corn crop goes to feed the corn ear-worm. The damages resulting from the work of this oval, light shining-brown insect, that lives about three inches below the surface of the soil during the winter, has amounted to 5½ million dollars in two years.

In this state three full broods reach maturity. The larvae of these three broods feed mainly upon the corn. The larva enters the soil in the fall and burrows down about three inches. From this point it excavates a tunnel to the surface, leaving a thin plate of surface soil untouched. It goes back to the bottom of the burrow and spends the winter. In late May and in June it crawls up its open burrow, bursts the thin plate of soil, and crawls out. Within a few hours it will be able to take flight and begin business. The females deposit their eggs upon the leaves of the young corn, and in four or five days they hatch. The larva feeds on the leaves near the tender curl for about eighteen days, then the full-grown larva enters the soil. It remains in the soil about thirteen days, and then comes out as the second brood in early July. The second and third broods feed upon the tender corn silk and grains. The corn ear-worm moth is a strong flyer and will travel a long distance to find corn that is in a stage of development suitable to its needs.

The method of controlling this pest is by destroying those that pass the winter in the soil. Late fall or early winter plowing will destroy a very large per cent, due to exposure to the weather and birds. To have good results, all the farmers in the community should plow their infested fields. One farmer alone cannot get rid of the pest, because there are always enough in his neighbors' fields to infest his crop. A farmer that plants his corn as early as possible will escape the large per cent of loss due to this insect, because the corn will then be past the attractive stage when the third and largest brood appears.

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PRES. H. J. WATERS Editor-in-chief
PROF. C. J. DILLON Managing Editor
DR. J. D. WALTERS Local Editor

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SATURDAY, APRIL 15, 1911

THE CITY MAN'S FARM.

In many a back yard, these April days, city men and children, and here and there a woman, are intent upon the spring planting. Five cents' worth of this and a dime's worth of that properly sowed and cultivated, with carefully arranged rotations; a nickel's worth of radish and a dime's worth of beets, some lettuce and some onion sets, a little patch of spinach—and there it is: the city man's farm. It means so much more to him than the professional gardener or the serious-faced farmer can imagine. It counts for good health, clean food, untouched by strange hands, unspoiled with alley dust; it means the delightful weariness of work in a man's own yard, his own spade and hoe and rake; the eager watching for the first green shoots; the solemn, evening consultation about the next day's weather, the chances for frost, and often the hasty gathering of newspapers and old skirts and sheets to protect the treasured plantlets.

Perhaps, without knowing it, the city man, with his back-yard farm, has been responsible for an unusual interest, this year, in gardening in the country towns where one might be excused for expecting to see it most diligently practiced. The extension department of the state agricultural college is giving its particular attention to a series of garden contests for boys and girls, and is receiving the most encouraging returns. Superintendent Miller has tried, in other years, to induce this sort of activity in rural places, but until this season has not been pleased with the outlook. But with the earnest help of more than 300 farmers' institutes the reports for 1911 are likely to surpass all other years.

To one accustomed only to back-yard farming the strange indifference of small towns and of farmers to their own welfare, as it may be worked out in a garden, has seemed unexplainable. Where the big crops grow, with every facility for quick cultivation, it has been a mystery that vegetables from Alabama and Florida should find constant market in the country towns. Where inquiry has been made the stress of work in the summer has been offered as an excuse, but for the winter, when farm work is slack, no justification has been forthcoming.

Why should not a farmer have a hotbed and several cold frames with which to supply his table? Why should he not put forth as much effort as a city man who toils all day in workshop or office and afterwards does his garden work, often under an electric light or the moon? The city man has to skirmish around lively to get the enriched soil, or the material with which to enrich it. The farmer has all these things at hand. The city man hustles out early in the morning, in many cases while the farmer still is sleeping—all reports to the contrary notwithstanding—eats a hasty breakfast, and runs for a car. The farmer, in the winter, gets through his chores, or makes the boys do them before school and after, saws a few sticks of wood, potters around the barn, goes to

town for groceries, chats awhile in the store, and gets home for dinner. But this is enough. The women on the farms know the end of the story.

ENGINEERING, THEN AND NOW.

It doesn't seem so very long ago, does it, that engineers were scarce; that you had to send to town for a man to oil the monkey-wrench or repair the coffee-grinder? Not long since everything, from a mower to a hand car, was "machinery" to be touched only by an expert.

But how about it now? In these happy days a farmer's son goes home from the state agricultural college prepared to do first-class blacksmithing; he knows how to weld metals; he can make a log chain; he can take the raw iron and fashion it into the shapes needed in an emergency on the farm. He becomes a figure of importance in the district. In the engineering laboratories of the agricultural college he has learned how to do many things that every man should know how to do; and the first of these is to operate a forge.

Every hour spent in that kind of work increases that boy's value in the community, adds to his efficiency, expands his brain-pan. No more encouraging spectacle could be desired than that of a line of several hundred students in overalls hastening across the campus, early, for the morning's work in blacksmithing or turning into the carpenter shop for the regular drill in that invaluable branch of instruction. No higher conception seems possible of common-sense, close-to-the-roots education that connects the head and the hands in doing something the world wants done.

But these boys go much further in this kind of learning. Not only can they make the parts for the machinery; they are taught, in the department of farm mechanics, how to use machinery properly; taught to study out some of the problems that heretofore have seemed unsolvable; to drop a lot of the foolish prejudices for or against this or that machine. They learn how to hitch up, right—this is the most severe shock they experience in college—how to distribute the load evenly to save the horses and save the machinery. They can take a gasoline engine apart and put it together again.

These are special features of the important instruction imparted in the agricultural college at Manhattan. A farmer's son equipped with this sort of education—and a reasonable amount of pluck—will succeed notwithstanding a few split infinitives.

BEAUTIFY THE TOWNS.

The farm yards of Kansas need beautifying, goodness knows; but how much more deplorable is the condition of the streets and yards of 98 per cent of the small towns! And not only the small towns, but the large towns and the cities that have come into existence! How vastly might they be improved if the parents and children should take part in the flower-garden contest announced for the summer by the extension department of the agricultural college.

Kansas towns are not one iota worse in this respect than nine tenths of the towns in other states, but this writing is not concerning other states. It is about Kansas and the means whereby Kansas may be made a more beautiful state, with attractive homes, and not merely "houses." Many of the country's great cities, notably Cleveland, Chicago, Philadelphia, Kansas City, have undertaken excellently organized home-gardening campaigns in which the public schools are used for lectures illustrated with lantern slides showing how a home may be improved by the children. Kansas, aided by the agricultural college, can do all these things. Kansas can do anything that any other state can do. The thing is to get started. Organize. You'll be surprised to see how the children will jump into the game and help.

If people only could hear what travelers say about their towns as they pass through the state; how the pretty places are complimented and the unkempt, draggled, unimproved, slat-

A Golden Text For Easter.

But God raised him from the dead.

And he was seen many days of them which came up with him from Galilee to Jerusalem, who are his witnesses unto the people.

Be it known unto you, therefore, men and brethren, that through this man is preached unto you the forgiveness of sins.—The Acts 13:30, 31, 38.

ternly villages condemned, they would—they might—take a little more pride in their outward seeming.

Wake from your grocery store slumbers; plant a flower here and there. If you haven't enough gumption to do that you might at least provide the money and let your wife and children do it.

FOREST FIRES.

The first lumber state, in 1900, was Wisconsin, says *American Forestry* for April. The census of 1910 will show that Wisconsin has fallen back in ten years to eighth place, and that its production of lumber in the same period has decreased forty per cent, which is more than that of any other state. The wood-using industries of the state, not counting the sawmills, use annually over 930 million board feet of lumber, valued at 20 million dollars, but the state will lose these industries, and many others even more important, as sawmills, paper and pulp mills, etc., unless all forms of needless waste are stopped. Forest fires certainly are the most useless and needless forms of forest waste.

The records show that in ordinary years the railroads are responsible for only about fifteen per cent of the forest fires, but the last summer was so dry that the least spark would start a blaze. Therefore in 1910 the railroads started about twenty-two per cent of the fires. There are many kinds of spark arresters that will prevent the escape of all sparks, but none has yet been found that will prevent the escape of sparks and still allow the engine to steam freely, and pull its load. Many men are working to solve this problem, and the correct solution should come in time.

THE GOOD CITIZEN.

"As our study of the problems of human life goes on," says David Starr Jordan in *The American Baby* magazine, "we are coming more and more to recognize the fact that misery has biological rather than economic causes; that incapacity for the stress of life is hereditary, to be only partly removed by training; that every child is a mosaic of parental and ante-parental traits, made up from what its father and mother ought to have been, not from what they really are."

"A good citizen is one who can take care of himself and has something more for the common welfare. In such hands the republic is safe. And a sound heredity in the baby means a sound manhood or womanhood. And the dominance of sound men and women in society is our guaranty of justice, of temperance, of education, of sanitation, of peace. We ask the peace of the strong and self-reliant, never that of the weak and discouraged.

"To the American baby of to-day we look to put an end to international wars as the baby of the past has put an end to intertribal wars.

"And it is with the fullest hope and confidence in the future that we hear the bells of Christmas again calling us to peace and good will. Peace and good will for the baby's sake, the baby who will so soon be called to make the nation."

WHEN OLD FRIENDS PART.

Once in a great while a big daily paper steps aside for a moment to pay an old-fashioned tribute to a worthy citizen. Often this does not come until after it is too late to give the object any pleasure; but a few days ago it happened the other way. A certain Mr. and Mrs. Rowe left Kansas City after living there many years. They left a circle of regretful friends and business associates, *The Star* testifying

that they would be sincerely missed, the more so because, as their future home was to be in England, there was small likelihood that they would return. City papers too often find pleasure in poking fun at just such chronicles in the country press. Sometimes these chronicles are trivial, but in nearly every instance they are a pleasant assurance of neighborhood esteem. Such assurances add a delightful piquancy, an unforgettable flavor to life that comes too infrequently. What is a newspaper for, after all, if not to tell the news in just such happy ways?

POTATOES-ON-THE-KAW.

The Aroostook potato growers, according to *The Christian Science Monitor*, are organizing to circumvent speculators and, meanwhile, to investigate a Swedish system of making a distilled liquid used to operate motor-cars. Without stopping to inquire the whereabouts of Aroostook, it is pertinent to say here and now that whatever is done in that delectable region will have no effect upon the fortunes of the diligent potato growers along the classic Kaw. One needs only to ride through that fertile vale to see, upon every side, the pleasing evidences of thrift. In every field men and machinery are busy. No sensible producer would waste time trying to make motor-car liquids. His spuds, like a famous soap, are 99 $\frac{9}{10}$ per cent pure, and therefore wholly unsuited to any except the customary process of serving upon the tables of the fortunate. Denatured alcohol holds no attractions for the Kaw or its people. Let the spring rise hesitate only a little and joy shall there reign undisturbed.

THE BOOK OF A THOUSAND PAGES.

To buy an agricultural library when one can get Secretary Coburn's annual reports is madness. One volume in the office or the home is a luxury and an education. You can study almost anything in it, from the features of college presidents to the latest and most approved methods of caring for incubator chicks. Ordinarily annual reports of state boards are junk of the worst kind; they take up space that might be used for something worth while; they are gloomy and useless.

If Secretary Coburn would arrange to have an attractive binding on his reports, a binding such as any valuable book should have, they would be the best sellers of the year. The report for 1909-1910, just out, contains about a thousand pages, and every one of them is readable. Indeed, there is more varied and valuable information in the book than one can get, usually, for two or three dollars. And Secretary Coburn, through the generosity of a great and glorious commonwealth, gives it away, free, for nothing, gratis, and absolutely without any charge.

COUNTING THE COST.

Students of Cornell University are costing the institution \$13.70 each more than they are paying into the treasury in tuition. As there are over 4000 undergraduates, the loss is considerable, says a recent dispatch.

The statement gives the present value of university property, buildings, and grounds as \$4,613,438, and of the equipment \$1,994,512. The station colleges are valued at \$471,797. The total productive funds are \$8,687,274, the income \$1,637,299, and the expenses \$1,625,395.

It might be a good idea, and comforting to the penurious, to consider the value of the education imparted exactly as a business puts a price on its good will.

THE HOG MARKET.

Compare last fall's prices for hogs with the \$6.35 of to-day, and then consider the latest prediction of the Cudahy forces. This prediction says pork will go to 5 cents in July and down to 4 cents in December. The Cudahys having no monopoly of advance information, this is worth remembering.

A falcon pen and a pad of paper will be presented the writer able to produce a really humorous story without once saying "whatever that is."

Easter Thanksgiving.

By Margaret E. Sangster.

Thank God for the dear ones safe to-day.
Safe at home on the happy shore,
Where the smile of the Father beams for ay,
And the shadow of pain shall fall no more.
Thank God for the hearts that have done with sin,

For the eyes that shall never be blind with tears,
Thank God for the beautiful, entered in
To the perfect rest of the deathless years.

Thank God to-day for the pilgrim feet
Which have trodden the last of the toilsome way,
For the strong, for the frail, for the babes so sweet,

Who have left forever this crumbling clay;

For the victor's palm and the voice of praise,
Who dwell in the light of the great white Throne,

And join in the songs which the ransomed raise.

Thank God to-day for the hope sublime
Which fills our souls in the darkest hours;

Thank God that the transient cares of time
Are wreathed in the glory of fadless flowers,

Thank God for the rift in the desolate grave;

'Tis the soldier's couch, not the captive's prison;

He hallowed its portal, who died to save,

And we write o'er its arch, "The Lord is risen!"

SUNFLOWERS.

Many persons talk so much that they miss the pleasant things others say.

The ways of widows, like those of Providence, are inscrutable.—*Minna Thomas Antrim*.

If John Lucas has to go through another Hyde trial he won't have any eyebrows left. He pulled out most of them a year ago.

With Dr. Hyde assured of a new trial, the curtain probably will go up in the jail. Incidentally, just think of reading it all over again!

Old police reporters doubtless are interested in the Camorrist trial in Italy. And how one Winifred Black must sigh for the sobs she might make!

Nothing to worry about, Professor Blackmar. There's no objection to brown-haired, brown-eyed women, or to tall, slender men. Get something harder.

The annual report of the mayor and commissioners of Wichita, just issued, begins with a picture of the city hall. There are no dotted lines and no arrows on this picture.

A woman in Salina sues for divorce because her husband made her sleep on the porch. If more husbands did that there'd be fewer grumpy wives in the land, and more rosy cheeks.

If Secretary Sessions gets away with his bluff about "making" the state printers do or not do certain things, he can hear something to his advantage by addressing *Brunette*, 786 Manhattan; no questions asked.

A "modest" fortune is said to await a girl who disappeared in Chicago in 1893. This fortune, the dispatch adds, is "in the neighborhood of" a million dollars. Quite a "dignified" amount. To such queer uses is English put.

"How shall I get my wife interested?" a man in the audience inquired, a few days ago, when a lecturer was talking about back-yard gardening in Kansas City. "Give her what you save, for pin-money," the speaker replied.

A good thing to forget: It was fifty years, last Tuesday—April 11, 1861—that the final discussion about who should occupy Fort Sumter was brought to a close. At 4 o'clock the next afternoon, April 12, the trouble began. But let it go at that.

Furthermore, let it be understood, this paper claims the discovery of "Norm" Hapgood's graham cracker. It happened this way: Mr. Hapgood was staying at a hotel in Manhattan and, one morning at breakfast—well, of course he had to eat something.

Nothing has much chance in this world. No sooner had the green bug begun operations than up pops its old hereditary enemy, the lady bug, or some other busybody. From now on it's a gamble as to which will win: the green bug, the lady, or the crops.

The funny thing about the theft of Mrs. Armour's bonds is this: You won't be in Kansas City six minutes before you hear the name of the "lady" who stole them. The only thing lacking is formal publication. It is said the thief has threatened to sue for libel any paper using her name. She'd be a success selling books, with that nerve.

PUMPKINS—GROW THEM.

CLOSE RIVALS OF SILAGE AS A RATION FOR FATTENING STOCK.

Dairy Cows, Especially, Thrive on This Member of the Squash Family—And Don't Fail to Remember Those Pumpkin Pies.

Pumpkins will soon be close rivals of silage crops as a ration for fattening purposes. They contain a large amount of protein and albumen and a fair amount of ash and potash. Their composition is so well balanced, in comparison with other feeds for young animals, that strength is imparted by the ash and potash to the bones of the stock, and the protein builds the flesh. Eighty per cent of the mature pumpkin can be utilized for feeding purposes.

Experiments have proved that dairy cows thrive upon this member of the squash family practically as well as upon corn, cane, and alfalfa silage. In fact, they relish their pumpkin rations as much as the ordinary boy does his slice of pumpkin pie. Pumpkins can be fed in the natural condition or cooked with corn-meal. When cows leave the summer grass to be put on dry feed for winter, the pumpkins serve as mild tonic, preventing any ailments that might result from the abrupt change.

GOOD FOR HOGS, ALSO.

These *Cucurbita Maxima*, their technical horticultural name, are also good food for the young pigs. What rape, alfalfa, turnips, and other such plants produce in them, pumpkins do, also. When the farmer takes his hogs from the pasture and starts full feeding on corn and sorghum, he finds they are very restive and discontented. Pumpkins will prevent this uneasiness and will start the accumulation of fat.

Pumpkins are valuable, also, as poultry feed. If they are well ripened and then halved, the hens and turkeys can derive much good picking from them, being similar to cabbage and carrots.

Pumpkins are easy to grow, if started correctly. A sandy loam soil, in good condition, is preferable. If possible, do your plowing in the fall, quite deeply. Cross check the land in plots 8x10 inches or 8x8 inches. Cover the places on the plots where seed is to be sown with a small dump of manure. As the pumpkin is a long-season plant, care must be taken to plant early, but not until all danger of frost is past. The best plan for Kansas farmers is to sow during the first part of May, as the ground then is usually in a moist, steaming condition. The seed will make a rapid growth during its early life. Sow three or four seeds to each plot.

HOW TO STORE THEM.

The plant should be cultivated carefully several times, until the vines spread so widely as to stop further work. Harvesting is done before severe freezing weather. In hauling from the field to the storing place be careful not to crack or bruise the fruits, and save the stem. Two or three fruits to each vine is a good crop, and will average thirty to forty tons to an acre. It is a good practice to place the pumpkins upon the ground, near where you will store them, for several days, so the sun may heat them thoroughly. They should then be carried to the cellar and placed, two deep, upon shelves or on boards supported by sawhorses or boxes. Endeavor to keep the temperature of the cellar as near 45 degrees as possible. They will shrink very little, even if kept until February.

The only insects that may cause annoyance are striped cucumber beetles and squash bugs. Both of these enemies can be eliminated by a spray of the Bordeaux mixture, if they become too numerous and make hand picking tedious.

When the cost of production is proved to the farmer to be a very inexpensive item, the fact that an extra large output is derived from a small amount of seed, and more advantageous feeding practices are developed, the importance of the "punkin" will be appreciated.

And those pumpkin pies!

A HOTBED ON A FARM.

It Isn't Too Late to Profit With This Advice—Free.

Few people realize the immense satisfaction that could be derived from the use of even a small hotbed or cold-frame on the farm and the little labor and expense it would involve. By selecting a site, preferably on the south side of a building or shelter belt of trees, excavating it to a depth of about two feet, filling it with horse manure to within about six inches of the top, and then covering it with fine, rich soil, a bed may be prepared which will insure early vegetables and a delightful change in the bill of fare at least a month before the neighbors are getting anything green from their gardens. The human system seems to crave something green and fresh in the spring, and good health as well as pleasure demands that it should be furnished. Build the pit just wide enough so that a board frame surrounding it will accommodate a six-foot sash that is three feet wide. These sash can be lifted alternately for ventilation or can be removed entirely on warm, sunshiny days. There is never any danger of frost when properly constructed. I built a double wall of common boards nailed on each side of 2 by 4 studding set in the pit, and filled the space between the walls with manure tamped down close. This brings it above the surface, and makes it a little more convenient, but otherwise it is no better.—*Mail and Breeze*.

TO CONTROL CORN-ROOT LOUSE.

The Most Effective Method Is a Consistent Rotation of Crops.

The most effective method of controlling the corn-root louse is by rotating the crops. This is recommended by T. J. Headlee, head of the entomological department of the Kansas State Agricultural College. In this rotation, corn is followed by wheat or oats. The corn-root lice will not thrive on the roots of these crops.

Nearly every farming district has a crop rotation suited to that particular section. In south-central Kansas a sixteen-year rotation is recommended. A part of the farm is rotated at a time.

According to this arrangement corn is grown for one year and wheat for two years. This method is continued until the twelfth year, when alfalfa is sown and grown for four years. Cowpeas may be planted in the wheat stubble just after harvesting the wheat.

These are plowed under in the fall as a green-manuring crop, and corn is planted on this ground the following spring.

MANURE MEANS MONEY.

Put it on the Fields Promptly Instead of Letting it Deteriorate.

Barn-yard manure increases the water-holding capacity of the soil. Instead of dumping the manure in some convenient, out-of-the-way place, or leaving it in the yard to deteriorate, or to rot the structures against which it is so frequently piled, the farmer can save money, and conserve the moisture of his soil, by immediately spreading it upon his fields. To get manure to the fields quickly and effectively a manure spreader is very useful.

Manure from the barn-yard adds humus to the soil; and humus acts like a sponge, retaining moisture in the soil, making it more capable of absorbing a heavy rain-fall and of holding it there longer. The moral, therefore, is to save and carefully spread all barn-yard manure over the fields. Manure is worth dollars, and it will put dollars into the farmers' pockets.—*Blooded Stock*.

The Man on the Farm.

"I am glad to see the cities grow, provided they do not grow at the expense of the country," said Theodore Roosevelt, recently. "The man on the farm is the man on whom our whole civilization rests. The growth and progress of the country depend upon him. I want to see conditions kept favorable for him and for his wife; don't forget that."

It's Time to Talk About Corn, Boys!

The Contests for 1911 have been planned

Two Big Features for the Year!

An Acre Yield; Honor Roll
A Five-Acre Yield Contest

The annual circular is out; the Farmers' Institutes in 105 counties have them. Get started!

Five Thousand Boys were entered in 1910! How many will try this year?

Four Sets of Prizes!

The usual classes, a Special, and the Extra Inducements for Big Yields.
You might get a trip to the State Institute, next December, when the Corn Show is on.

Four days of corn and stock judging. Four days of helpful talks.

Think it over, Boys.

The general contest will be limited to boys between ten and twenty-one; Class B, boys from ten to fifteen, and Class A, boys from fifteen to twenty-one. Boys who will be fifteen years old by July 1, 1911, may be admitted into Class A.

Can you produce 75 bushels an acre?

Can you produce 60 or 40 bushels?

Every active Kansas boy ought to win under one of these classifications.

Address, for further information,

Superintendent of Agricultural Extension,
Kansas State Agricultural College, or Your Institute Officers.

PLAN THE DAY'S WORK.

HOW A COLLEGE GIRL THINKS HOUSE-WORK CAN BE SIMPLIFIED.

It Will Make More Happiness for Every One in the Home—Some Ideas of a Good Schedule to Follow.

Have you ever planned your work? Try it and see how much more time you have to visit and do your "tattling."

Rise early, throw open all the bedroom windows. Remove the covers from the bed so that it will air well.

When breakfast is over, wash the dishes, do your sweeping and dusting; then go into your garden and gather the vegetables that you are to use for your noon meal, before it gets too warm, or the vegetables may be slightly tough. Wash and put them in a cool place until ready to use.

If you are so unfortunate as not to have a garden spot, go to the grocery and do your purchasing before everything has been picked over. Don't telephone for goods. If there's a baby in the house, put it into the buggy and take it along. The exercise will help both of you. This is not a "knock" on the telephone, so remonstrances from that source will be superfluous.

Before beginning dinner, make the beds and arrange your bedroom. The old idea has been dispelled that the neatest housewife is she who makes her bed early. When the noon meal is finished and the dishes washed, if you are tired, take a nap; then dress the baby. If you have sewing or mending to do, do it; if not, make the calls you have wanted to make for so long. Always be home in time to prepare a good supper, and ready to talk over the happenings of the day with the man of the house when he arrives, tired from the day's hard work.

Do not be in a hurry to leave the supper table, for this is the only time during the day that the family has time to talk. When the man of the

house begins to read his evening paper, wash the dishes and arrange things for the breakfast.

THE TIME, PLACE AND BUTTER.

May 1, College Dairy Hall, for the Next Scoring Contest.

The second bi-monthly butter-scoring contest for 1911 will be held May 1 at the college Dairy Hall, K. S. A. C., Manhattan, Kan. F. L. Odell, U. S. dairy expert, will do the scoring.

Butter makers who did not take part in the March contests are still eligible for the prizes by entering all of the contests for the rest of the year. Fifteen, or about 20 per cent of the butter makers of Kansas were entered for the last contest, which is a higher per cent than any other state has. The highest tub for March scored 93.

The conditions of the contest are: A sample of butter consisting of not less than 10 nor more than 20 pounds of butter should be sent to the college, not later than April 28, by prepaid express. It is scored here, held six days, and shipped to Chicago and rescored by Mr. Joslin, federal market inspector. The butter is then sold and the proceeds divided among the contestants. A moisture and salt analysis of every sample is made. A blank is furnished to show the exact conditions under which the butter is made.

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The showing of the college views at the theater Tuesday night suggests an idea. Why not put these views on a circuit as moving pictures are used, and have them shown in towns all over Kansas? It would be a good advertisement for the college.

The pictures were made by Doctor Orr, at the direction of the class-book committee. They will be shown again to-night.

MAKE YOUR DRAIN TILES.

THE WORK IS SIMPLE AND THE OUT-FIT COSTS \$60 OR LESS.

Engine or Hand Power to Run the Machine—Cement is as Good as Clay if Manufactured Right.

Make your own drain tiles. The work is simple and can be done in the spring or on rainy days. Cement tiles are fully as good as the clay, if they are made right.

The outfit needed to make these tiles consists of a machine in which the molds are placed when filled, and the molds. It can be bought for \$35 to \$60. The machine can be run by hand or by engine. If turned by hand, about 600 tiles a day are made, but with an engine this can be increased to 1200.

After filling the mold with flexible casing put it into the machine. Then take enough cement for a tile and pack it firmly against the casing by turning the packer through it. The mold is then opened and the tile, still supported by the casing, is taken out. After the cement has become quite hard the casing can be taken off and used again.

Cement tiles become harder and stronger with age, while the clay tile weakens. Cement ones have the advantage also of not being drawn out of shape by burning.

The proportion of sand and cement to use is about three to one. The sand used should be clean and as angular as it is possible to get. Crushed rock can not be used to any advantage in the smaller tiles. Slow-setting cement is stronger than the quick-setting variety.

The size of tiles depends upon the amount of water to be carried. For most places the lateral drains should be of three- or four-inch tiles. Eight-sided tiles are laid much easier than round ones, and cost little more.

THE KANSAS INDUSTRIALIST

Volume 37

Kansas State Agricultural College, Manhattan, Saturday, April 22, 1911

Number 29

CORN YIELDS WERE BIG.

EIGHTY BUSHELS AN ACRE OUTSHINES STATE'S "AVERAGE."

Proper Cultivation, the Demonstration Farms Prove, is the Important Element—Some Specific Instances Reported.

Don't let the "average" corn yield discourage you. An average is a poor thing to use in an argument. Five men in a Pullman sleeper, one night, were said to be worth an average of 20 million dollars; but one of them was John D. Rockefeller. It's the same with "average" crop yields. Wheat gives only 13½ bushels an acre, but a certain Mr. Hamm grew 65 bushels and many farmers get 20 and 25 or 30 bushels.

Corn seldom goes over 18 or 20 bushels an acre on an average, but the large yields of corn in the eastern part of the state, particularly that district known as the corn belt, raised the average considerably. Some very good yields were produced on the county demonstration farms in the eastern part of the state. P. E. Crabtree, lecturer on farm management for the extension department of the Kansas State Agricultural College, has had charge of ten of these farms that have been turned over to the experiment station.

AND THE GILMANS.

J. M. Gilman, of Leavenworth, a breeder of good corn, who owns part of the demonstration farm in his county, grew 65 bushels an acre last year, using the Boone County White variety. This is one of the best-yielding kinds.

F. W. Dixon, of Holton, Kan., on a piece of tile-drained, bottom land, averaged 74 bushels an acre, and 60 bushels on a piece of rented upland. The upland was not very rich, but a crop of cow-peas had been grown on it previously, which helped considerably. Mr. Dixon grew Commercial White. This is the only variety that A. M. TenEyck, superintendent of the experiment station at Fort Hays, has found to yield more than the Boone County White in this section for a series of crops.

80 BUSHELS AN ACRE!

A 28-acre field planted to Hildreth's Yellow corn, near Burlington in the Neosho river valley, averaged 80 bushels, a year ago. The Hildreth's Yellow is recommended with restrictions. It requires a long and favorable season, as it is a slow developer, and a rich soil. It must be planted early and very thin. On the Johnson county demonstration farm near Olathe, on a medium fertile upland soil, Ried's Yellow Dent, a quick developer, averaged 55 bushels for the last two years.

Mr. Crabtree believes this a very good yield, considering the soil. Some good yields have been noted in Jewell county, at the western edge of the corn district, by planting the Kansas Sunflower, a yellow corn, or the Pride of Saline, a white corn. These varieties are not the heaviest yielders in the east part of the state.

The reasons for these large yields of corn are many, seed, soil, and methods of handling being important factors. These things can be learned only by study and work, but the average of many fields can be raised easily.

HOW THE COLLEGE HELPS.

The Engineering Department Continues Its Usefulness to the State.

The heating system at the state hospital in Topeka never has been satisfactory. The buildings, in several instances, are heated by separate plants in basements, a system that has proved very expensive and inconvenient and otherwise unsatisfactory. Recently the management bethought itself that the state has experts in these matters and decided to use them.

A conference with President Waters,

of the agricultural college, and another with E. B. McCormick, dean of engineering, resulted in immediate action. L. E. Conrad, professor of civil engineering, went to Topeka Tuesday, and began immediately plans and profiles for a concrete tunnel on the state hospital grounds. This new tunnel will serve heat to the present structures, a new building now being erected and another soon to come. The tunnel will be a duplicate of that at the agricultural college.

B. S. Orr, of the engineering department, is in Topeka for a week or two at the request of the executive council to give instruction to engineers and firemen at the heating plant of the state-house. This instruction is to treat particularly of more economy in fuel consumption. Mr. Orr is to plan and remodel the heating system of the state-house, with the object in view of increasing the heating capacity of the present installation so that an increase of equipment will be unnecessary.

Instructors and advanced students from the engineering division of the college made an efficiency test last week in the power-plant of the Branch Normal School at Fort Hays. This was an acceptance test.

TO TEACH WEST VIRGINIA.

Miss Minnie Forceman Goes to Wheeling to Demonstrate Movable Schools.

West Virginia appreciates what Kansas is doing in the way of agricultural awakening. Miss Minnie Forceman left Manhattan Friday night for Wheeling, W. Va., to show how movable cooking schools are conducted.

Rather far from Kansas to Wheeling, is it not? When George Laughlin, formerly an owner of one of the leading newspapers of Wheeling, W. Va., read about the movable cooking schools that are being conducted by the Kansas State Agricultural College, he could see no reason why the plan would not work there as well as in Kansas. Good cooking in the rural districts, he and Mrs. Laughlin decided, was as necessary in the south as elsewhere. Accordingly, Miss Frances Brown, lecturer on domestic science in the extension department, received a letter from Mr. Laughlin asking her to come to Wheeling for at least six weeks, before hot weather, to demonstrate the movable cooking schools. Miss Brown is too busy preparing her courses for next year's work, so Miss Forceman was chosen for the place.

Miss Forceman, who graduated from the college in '09, has assisted in the movable school work in Kansas, both as conductor and assistant. She also taught in the domestic art department, and it was her success that was the reason for her being sent as the representative from Kansas.

Mr. Laughlin is very much interested in the Presbyterian Sunday school at Wheeling, and it will be in connection with this that he is undertaking the work. He is financing the matter himself, including the salary of the instructor. His plan is to see if this work can not be conducted at Wheeling during the entire year.

DR. L. W. GOSS TO EUROPE.

He Will Study for a Year at the German Universities.

Leonard W. Goss, assistant professor of veterinary medicine, has been granted a leave of absence and will leave for Europe the last of April. Dr. Goss will study at the German universities, specializing in pathology and histology. He will remain in Germany all of the next school year.

Dr. Goss graduated from the Ohio State University in 1905. He came to the Kansas State Agricultural College in that year, and in 1909 was made assistant professor of veterinary medicine.

TO CROWN THE QUEEN.

THE SECOND ANNUAL FESTIVAL WILL BE HELD ON MAY 11.

School Will Be Dismissed at Noon on That Day—The Event Will Mark the Gathering of the "Aggie Family."

The second annual May Festival will be held on the campus of the Kansas State Agricultural College May 11. School will be dismissed at noon on that day.

The most important feature will be the crowning of the May Queen, on the college campus. The May Queen is to be chosen by the senior girls. The crowning is to be a more elaborate ceremony this year than it was at the last festival.

A May-pole dance will be given by a girls' "gym" class and a farce will be another pleasing feature. The sororities, fraternities, and literary societies are to send in descriptions of the "stunt" they desire to put on, and the six best of these will be chosen.

An admission fee of 10 cents will be charged, and the Y. W. C. A. will sell candy, ice-cream, and other things necessary for a good old-fashioned holiday.

The proceeds from this festival are to be loaned to students who desire to attend the Y. W. C. A. conference at Cascade, Colo., or the Y. M. C. A. meeting at Lake Geneva. This loan is to be paid not later than two years after graduation. The object is to have the Festival established so there will be a permanent fund every year.

The May Festival will be a big college affair, for it will furnish a fine opportunity for the "Aggie family" to get acquainted.

PRAISED THE CADETS.

Captain H. N. Cootes Inspected the Corps Here Tuesday.

"I have visited eight colleges already. I have found the cleanest guns and equipment, the most willing cadets, and the best understanding between the military department and the college authorities. You have the prettiest campus I have seen," Captain H. N. Cootes, 13th U. S. Infantry, aide of the Secretary of War, had just finished the inspection of the college cadet corps. An army officer is detailed by the War Department every year to inspect the schools that have more than 200 cadets of sixteen years or older.

Captain Cootes came here from the Oklahoma University Preparatory School, at Tonkawana. He has to inspect twenty-five colleges. He praised the showing of the cadets and congratulated Captain Boice on his success with the cadet corps.

"I'm mighty proud of the boys," said Captain Boice. "They did fine and I know we'll have the best report we have ever received."

WHY OWN A THRESHER?

The Outfit Costs Too Much for One Farmer—The Professional.

A small threshing outfit on the average farm will not pay. The first cost of the outfit is too large for the amount of grain to be threshed. The cost of threshing 1000 bushels of wheat is \$50, 1000 bushels of oats \$40, 1000 bushels of alfalfa \$100, a total of \$190.

The cost of a 32-inch cylinder outfit, equipped with weigher, stocker and huller device, with a 16-horsepower gasoline tractor, will be at least \$3,000. The interest on the \$3000 at six per cent is \$180. The wear and tear on the machinery will more than make up the difference.

The co-operative ownership is equally unsatisfactory. Where several neighbors are interested, unless systematically organized, there is no one to look after the outfit or to be held responsible. It takes an experienced man to run

and keep a threshing outfit in repair.

Where joint ownership and the exchange of work between neighbors is practiced, some farmer's crop will suffer. He should be stacking his own grain. Rain not only causes wheat to sprout, but it bleaches it. Stacking grain not only adds color, but will cause shriveled wheat to look plump, adding to its market value.

In farming, as in other lines of business, the person who succeeds is the one who tends strictly to his own farm. Hire all the help you need. Four men with two teams can stack from ten to fifteen acres of wheat a day. When stacked it is as well protected as in the granary.

One half as many men are needed in threshing from the stack as would be needed in threshing from the shock. In doing this one can wait for the professional thresher with his big well-equipped outfit. He is an experienced man and knows how to run and keep his outfit in repair. You will not find one half the wheat in the straw pile.

A large machine will do more work and do it better. A day's work at a place and then you are through threshing. A farmer's wife will not have to be cooking and baking three or four days for men. She should be considered, as well as the crop of wheat.

PLANT THE EARLY OHIO.

That Variety of Potato Yields 190 Bushels to the Acre.

The Early Ohio is the best potato for Kansas. The reasons given by experts at the agricultural college for placing this variety at the head of the list, are that it matures early and seems suitable to Kansas soil. These men have made experiments and know. Next in rank to the Early Ohio is the Irish Cobbler group. This variety is desirable because it is a smooth, mealy potato, has few eyes, and matures early.

Other varieties grown in the state that have netted good results are the Carmen No. 3, Triumph, and the Rural New Yorker.

Obtaining the seed is the important thing in growing potatoes. Northern-grown seed for the Early Ohio is the best. Special care should be taken, in purchasing the seed, to have that which is from fields free from disease.

Much seed has been imported into Kansas this year that is infested badly with dry rot. It is so infested that one fourth of the seed floated when placed into the disinfection solution of formaldehyde. Many seed men and even local growers run risks in buying cheap seed and not paying attention to its condition.

The best seed potatoes come from Minnesota and North Dakota. One-year seed is good, but second and third year are the best. These are acquired by digging the first crop of potatoes as soon as matured and re-planting for a second crop the same season.

Here are some of the records from experiments made by the horticultural department:

Home grown..... 137 bushels an acre.
Northern grown..... 167 bushels an acre.
Junior Early Ohio..... 190 bushels an acre.
Home Grown, sixteen years 93 bushels an acre.

Farm Exports Falling Off.

The Bureau of Statistics reports a decrease in the value of farm exports during the eight months of the present fiscal year, compared with the similar eight-months period last year. Of breadstuffs—corn, wheat, oats, etc.—\$76,194,043 worth was exported in the last eight months against \$95,853,304 worth in similar eight months last year; \$76,182,732 worth of meat and dairy products against \$76,892,250 last year, while in cattle, hogs, and sheep, the exports were only \$7,014,348 against \$10,492,197 in the eight months of last year ending with February.

WOMEN INTO THE WORK.

FARMERS' INSTITUTE AUXILIARIES HAVE A MEMBERSHIP OF 321.

Those Who Belong do not Neglect Their Housekeeping Duties—They Are Trying to Solve the Home Problems Scientifically.

Three hundred and twenty-one Kansas women are studying home problems scientifically. To do this it is not necessary for them to neglect their home duties in the least. And how is this accomplished? Through the women's auxiliaries to farmers' institutes. Some persons have the idea that these organizations are only for farmers' wives, but this is not true. Every woman is eligible to membership, as the work of a homemaker is practically the same in city or country.

Everywhere people are waking to the idea that education, to be of service, must be practicable; and as a result, industrial education has been introduced into schools and colleges. Statistics show that ninety-four per cent of the women of the United States become home-makers, and as home-making has been recognized as a profession, girls are being taught how to conduct a home in the best way.

There are, though, many women who have not been able to take advantage of these opportunities, who are themselves in charge of homes without adequate preparation. For these women the farmers' auxiliaries were organized. These organizations are under the supervision of the extension department of the Kansas State Agricultural College, and plans for organization are furnished by the department.

The auxiliaries meet once a month. All auxiliaries discuss the same subject at the same time. The subjects are practicable, every-day ideas suited to the time of the year. This month they are discussing poultry, and in May they will take up gardening. In June, when fruits are in season, canning will be the topic for discussion. Outlines of subjects and lists of reliable references are sent to every auxiliary.

There are already sixteen organizations in Kansas, the largest one being at Gove with fifty-five members. Much interest has been taken in the work, and the next year probably will see a large number of auxiliaries established.

WILL VISIT MANY COLLEGES.

J. H. Miller to Investigate Extension and Correspondence School Work.

Kansas is to have the benefit of the experience of other schools in regard to extension department work and teaching by correspondence.

J. H. Miller, superintendent of the extension department at the Kansas State Agricultural College, left Tuesday, April 18, on a ten-days' trip to various well-known colleges. The object of this tour is to see how extension and correspondence work are conducted by these institutions.

Mr. Miller went first to Stout college at Menominee, Wis. The other schools which he will visit are: Wisconsin State University, Madison; the agricultural college and experiment station, Ithaca, N. Y.; the Pennsylvania State College; the state university, Columbus, Ohio; Purdue University, Lafayette, Ind.; the Illinois State University, Urbana.

Annual Egg-Roast.

The sixth annual Hamilton-Ionian egg-roast was held Saturday night at Cedar Bend on Wild Cat creek. More than 30 dozen eggs, a similar number of sandwiches, several gallons of ice-cream, and other eatables comprised the bill of fare.

THE KANSAS INDUSTRIALIST

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PRES. H. J. WATERS Editor-in-chief
PROF. C. J. DILLON Managing Editor
DR. J. D. WALTERS Local Editor

Except for contributions from officers of the college or members of the faculty, the articles in THE KANSAS INDUSTRIALIST are written by students in the department of industrial journalism, under the direction of Prof. Charles Dillon.

The typesetting and other mechanical work is by students in the school of printing, of which J. D. Rickman is superintendent. Both these departments are in Kedzie Hall.

Newspapers and other publications are invited to use the contents of the paper freely without credit.

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SATURDAY, APRIL 22, 1911

PRAY, AND WORK HARD.

It is a mistake to suppose that farming breeds optimists or pessimists any more than any other business. There are men of both kinds in every walk of life. Any man who is not wholly colorless belongs to one or the other classification. Any human being subjected to the slings and arrows of a fortune that may be outrageous or otherwise is reasonably certain to develop into a cheerful, hopeful, ambitious, energetic man, or a gloomy, taciturn, uncompanionable grouch before he passes his fiftieth birthday anniversary. Farming has no more to do with this state of mind than it would have if a man jumped into a well—and not so much, perhaps, when green bugs are about.

Seriously, the trick of ascribing to farming every peculiar mental condition is absurd. It is just such stuff that has made nine tenths of the farmers believe themselves martyrs. There are pessimistic farmers, certainly, as there are pessimistic carpenters. A gloomy farmer is gloomy, in many cases, because his food is not properly assimilated; he believes rain will never come, that bugs will get the whole wheat crop, that prices are going lower, and that the country generally is run down at the heel. Another man, across the road, tilling the same kind of soil, whistles while he plows and hums a song, takes time for a smoke at noon, and views the situation through rose glasses.

A farmer is no better and no worse than any other man in this busy world. Look carefully over your own experience of life, whether you be mechanic, lawyer, college professor—especially the professor—or railroad president, and you will discover that men get about what is coming to them if God wills it so and all the votes are counted properly. In addition to this you should remember the advice of the philosopher who said he prayed and worked hard. And that is about what everyone has to do in this world—farmer, merchant, or banker. If you have made up your mind to look only upon the dark side, to be eternally in the dumps, why go ahead. No one this side the pearly gates can help you.

SCIENCE NEEDS TIME.

All experimental work that goes beneath the surface is beset with obstacles in which many sciences are intricately entangled. Every technical problem in agriculture yields both definite and indefinite results under scientific investigation, says *The Breeders' Gazette*. Not only are the data themselves surcharged with subtle differences, oppositions, interrogations and contradictions, but the attitude and the personality of investigators are factors in the difficult search for truth. It is not improbable that experiments sometimes produce more positive or negative information than can be accurately interpreted by inexperienced students, especially in cases where popular notions or prejudices exert a powerful influence.

It is obvious that scientific investigations in agriculture cannot be con-

ducted or measured by fixed rules; in the maze of conditions which surround every quest for the elusive truth there is much variable groping in dark places, even by the most enlightened explorers. But there are types of research work which, because of their many-angled complexities, require more time for study and yield less popular information than some other lines of inquiry. Perhaps the most difficult of all branches of work in which scientific men are engaged is that which has to do with live stock. In pursuing it they encounter a stubborn combination of all the puzzling physical, chemical, and biological conditions which in the field of the narrower specialist are less troublesome.

Americans are too impatient, too insistent on immediate dividends, to give science the time and aid which it requires to dig out fundamental truths in the practically unplowed field of animal husbandry. Serious, competent men no more than begin an investigation than the public clamors for definite results by which it may justify its support of the work.

If we are to get anywhere in live-stock investigations we must put more money into them, quit prodding experimenters for "facts and figures," and grant science the busy leisure which it demands in its slow, tedious search. And the public should understand that the scientific man who is large enough to make an important find in any field of research never announces his discovery with a tom-tom. Beware of the brass-band spirit in all scientific endeavors.

PROTECT THE CHILDREN.

An earnest and carefully planned campaign of education is progressing throughout the land to protect children against infantile paralysis. Surely Kansas will take advantage of every opportunity of this kind. Especially in districts where dust prevails much of the time, parents should heed the advice of physicians. Throughout the summer, which is the time the disease becomes noticeable, every precaution should be taken. THE KANSAS INDUSTRIALIST believes it a duty to print these general instructions, issued from an authoritative source. It should be remembered that science, which masters most problems eventually, has learned much in the last few months about this dread malady:

Keep your children away from suspected cases.

Keep the mouth and nasal passages clean, for it is through these organs the germ enters and attacks the spinal marrow and the brain, causing either a temporary or a permanent paralysis of the muscles.

Like typhoid or scarlet fever, the germ can be carried by perfectly healthy persons, who themselves will not contract the disease, but who may transfer the germ to others.

Disinfect or destroy the secretions of the nose and mouth of the patients, for the disease is thrown off just as it is contracted, from the brain, through the nose and mouth.

While chiefly a disease of children, infantile paralysis sometimes attacks adults. The beginning of epidemics which made many American homes desolate has been traced to schools, and even Fourth of July celebrations and country fairs have been known to originate them.

At present there is no cure, no remedy, for this awful children's scourge, but preventive measures, intelligently employed, will diminish the number of cases.

AN INCREASING TENANCY.

The census reports show that the number of farms in Kansas, operated by tenants of all classes, had increased 4305 in 1910 over 1900. Farms conducted by tenants last year numbered 65,231 against 60,929 ten years ago. This means that 36 per cent of the farms in this state are in tenants' hands, the owners gone to town or to Europe—and one is as bad as the other, in most instances.

The total number of farms operated in 1910 by owners, part owners, and owners and tenants, comprising the "all owners" class, was 110,742 as

A GOLDEN TEXT.

Judge not, that ye be not judged.

For with what judgment ye judge, ye shall be judged: and with what measure ye mete, it shall be measured to you again.

Thou hypocrite, first cast out the beam out of thine own eye; and then shalt thou see clearly to cast out the mote out of thy brother's eye.—St. Matthew 7:1, 2, 5.

compared with 110,443 in 1900, an increase of 229. The total number of farms operated by managers in 1910 was 1326, as compared with 1729 in 1900, a decrease of 403.

The total number of farms operated by the "all owners" class constituted 62 per cent of the whole number of farms in 1910, and 64 per cent in 1900; those operated by the "all tenants" class, 37 per cent in 1910 and 35 per cent in 1900, and those conducted by managers, 1 per cent in both 1910 and 1900.

Of the total number, 110,742, of farms operated in 1910 by the "all owners" class, there were 61,569, or 56 per cent, reported as owned free of incumbrance, and 49,173, or 44 per cent, mortgaged; for 1292 of those owned free, however, no report of mortgage debt was obtained.

This is not a good showing for Kansas. It does not evidence that attachment to the soil that is the strength of an agricultural state. The teaching of agriculture in rural schools by persons qualified by environment and education will do much in the next decade, it is believed, to stop this turning away from the soil. True, a tenant takes the place of every farmer who moves away, but in eighty per cent of the instances the tenant does poorly with the land and the owner loses interest in the community.

A MODERN FARM.

From Culver, Kan., comes a story of a really modern farm, a place upon which agriculture is a business, with a home comfortably equipped for those that do the work. The example is worth the careful consideration of every farmer in the state. The Salina Journal tells the story, the occasion being the installing of a 25-light, acetylene system on the farm of C. C. and W. C. Yocom.

This farm contains 320 acres. The Journal describes its conveniences in tabulated form as: One 8-room, modern house—this means with water, light, and bath; two large barns, one for horses, with capacity for 17 head and room for 25 tons of hay; an immense cow barn, with concrete floor, fitted throughout with sanitary stalls of steel and concrete. The capacity of the barn is 26 cows and 80 tons of hay. Here, also, is a set of scales and a milk sheet, so that a correct record is kept of every cow. The best cow at this time produces 5 gallons of milk a day. These cows are mostly Holsteins. There is also a separator house fitted out with Babcock tester, steam separator, boiler to furnish steam for power and hot water for cleaning cans, buckets, and other utensils. These barns, the separator house, and the dwelling are lighted through with acetylene.

Why, if it please the court, should not every farmer have that sort of farm and home? Better still, why should he not use the water power in his gas engine to light his house and his barns? The original outlay is the only consideration. The trouble is much as it is in a city when paving or a viaduct or some other improvement is proposed: breaking the news to your pocketbook.

A GIRL'S OPINION.

The person who thinks it is easy to cook for half a dozen persons is mistaken. How can cooking for half a dozen persons be easy, when it takes at least half of the day to prepare the three meals, and a great deal of the time left to plan the menus?

Many women have said they would rather do the cooking than plan the menus. After the menu is planned one will have to get the groceries. Often the merchants do not have what

you want, and the menu will have to be re-planned.

Another puzzling question is, what is to be done with left-overs? Dishes are made that will use most of the left-overs, but it takes time to think of them. The worst part of the cooking comes at the last, and that is washing the dishes when one is tired and hot after working over the stove for two hours. The housewife's morning is completely spent in finishing breakfast and preparing the noon meal.

DO YOU DELIGHT TO BARK?

That's One Way to Train a Collie, an Expert Says.

Did you ever run after a cow and bark at it? Not an especially edifying spectacle, certainly, but a very effective way to train a young Collie, if Leslie Ross knows what he's talking about; and in the matter of cows and dogs Leslie is somewhat expert. He is chief of that department of the agricultural college, a Scotsman with a canny way in such a business. Fannie, his companionable herd dog, testifies, mutely, to Leslie's veracity.

Training collies, according to Ross, is largely a matter of patience and appreciation of the dog's traits. It seems to be second nature for a collie to follow cattle or sheep. Anyone that understands dogs can take advantage of this instinct to get a helper that always will be willing and faithful.

If you have an experienced dog, the task of training a puppy is simple. Tie the two dogs together; an intelligent pup—and most collies are intelligent—will learn the game quickly and enjoy it.

Train the puppy to stop when you hold up your hand; to follow the direction of your arm, and it will be only a matter of time until the collie is more trustworthy than the average hired man.

To train a collie first-hand, teach him to start and to stop at command. Violence is unnecessary and harmful. The collie is the most sensitive of dogs. A few gentle slaps at the most is all the punishment necessary. Take the dog with you until he acquires the habit of driving the cattle.

STRAIGHTEN YOUR TREES.

Here Are Some Simple Directions Upon Which You May Depend.

Perhaps the trees you set out last spring did not grow straight; they may be bent over, or the trunk may be crooked. You may straighten them if you follow these directions:

Drive a stake in the ground and tie the tree over to it with a wire. Wrap the tree with burlap where the wire is placed about it. If necessary, several wires may be used and a tree that is very crooked may be straightened to a very noticeable degree. The wires may be left on several years. If this is done, it probably will be necessary to adjust or add new burlap every year.

Does it Pay to Spray?

Does spraying pay? With a common spray pump mounted on a barrel, G. C. Gillmore, of Shawnee county, sprayed his five-acre apple orchard with arsenate of lead and Bordeaux mixture. That season Mr. Gillmore harvested 725 bushels of cider stock, 56 bushels of second-grade apples, 280 bushels of "orchard run" fruit, and 4505 bushels of No. 1 choice apples which sold at \$1.50 a bushel box, or \$6757.50, an average of \$1351.50 per acre for the best apples alone. Yet we are sometimes told fruit-raising isn't profitable in Kansas, and of course "there's a reason" why it isn't.

—Farmers' Mail and Breeze.

Intensive Farming.

Intensive farming is not a bugbear. It is not something big that we should strive after without very definite ideas of attainment. It is simply common sense applied to our every-day work. Use the best seed, the best methods of preparation and cultivation of the ground, breed and feed good live stock, and turn every ounce of manure back to the land.—Henry McAfee.

An April Glee.

I hear the wild geese honking
From out the misty night—
A sound of moving armies
On-sweeping in their might;
The river ice is drifting
Beneath their northward flight.

I hear the bluebird plaintive
From out the morning sky,
Or see his wings atwinkle
That with the azure vie;
No other bird more welcome,
No more prophetic cry.

Oh, spring is surely coming,
Her couriers fill the air;
Each morn are new arrivals
Each night her ways prepare;
I scent her fragrant garments,
Her foot is on the stair.
—Farm World.

SUNFLOWERS.

The Hutchinson Gazette gets in on time with an assurance of a "Bumper Crop of Wheat."

The Esteemed Hutchinson News told, last Friday, how Rene Barrier, the aviator, flew 4200 feet "in the air." Good.

There's enough worry trying to get gold without weeping over the scarcity of radioro, the wonderful new precious metal.

The landowner who hasn't time and inclination to trim his hedges shouldn't have any land or hedges or any vote.

Plates at the recent Bryan dinner cost a dollar. There were said to be sixteen applicants to one that got in, too. Strange.

The sentencing of a man for vagrancy, in Brussels, last week, without giving him a chance to communicate with friends, sounds like Kansas City.

The success with which many of the newspapers side-stepped the word "cyclone," last week, proves the wonderful elasticity of the English language.

Upon a recent visit to Kansas City, involving an afternoon in a vaudeville theatre, it was noticed that one handkerchief still serves for the whole family of acrobats.

"You will remember," said the old police reporter, "that I refused to swallow that story from Las Vegas about the kidnapping. In fact, I always thought—"

A woman guest laughed herself to death, a few nights ago, in Chicago, over some joke a man told her. Dollars to whetstones it was something about table manners.

"People at Eskridge went over the ground like tumble weeds," said a dispatch describing the tornado-twister-high-wind-hurricane, last Saturday. They now know what it is to be rolled. Kansas City papers please copy.

Dr. Crumbine is to attack the flies at once. The first move will be to print posters 30 inches long and 18 inches wide telling the fly's history. The doctor should remember this will be libelous unless he can prove it.

It would be a fine idea, also, for the extension department to get up a painting contest, the farmer using the most paint on his home and barns and fences, five years in succession, to be awarded an aluminum butter dish and a pocket flashlight.

"If you can't sing arias in grand operas," says the beautiful Tetrazzini, "bake pies. If you can't paint really great pictures, darn socks." A picture of Tetrazzini doing any of those homely tasks would be a fine seller. But, then, Tetrazzini can sing.

Richard.—It is perfectly proper to put the egg shells on your plate. Dropped near your chair they might cause the waitress to slip or even to slide. Cherry pits should not be put in the pocket. Slowly and deftly push them under your neighbor's saucer.

A dispatch from Paris, explaining the causes of the champaign riots in that country, says "it was believed the suppression of the territorial delimitations would be followed by the gravest consequences." This has been our opinion for years; but what caused the riots?

The question now agitating tariff tinkers is this: Would Birmingham, England, under protection, and Birmingham, Ala., under free trade, be equally prosperous, as prosperous as they are with present conditions? Answers may be sent to The Puzzle Editor not later than April 31.

LOCAL NOTES.

There will be no Dramatic Club play this year. The club has disbanded.

A. E. White, of the mathematics department, will teach at the Osborne county institute, beginning June 5.

The department of printing has been asked to bid on 10,000 books of the "Self-Correction in English," published here recently.

William H. Andrews, assistant professor of mathematics, will be one of the judges at a literary contest at Alma, Kan., April 29.

Nelson Antrim Crawford, Jr., assistant in the English department, who has been ill at his home in Council Bluffs, Ia., expects to return to his work next week.

Miss Flora Knight, assistant in English, has collected a series of helpful references for teachers and students in the study of English readings and classics.

Geo. T. Guernsey, Jr., of Independence, Kan., who is section chief of the Phi Gamma Delta fraternity, visited the college last Wednesday. He was a guest of the Tau Omega Sigmas.

Mrs. Mary P. Van Zile, dean of women, read a paper on the education of girls before the Chaldaean Club of Topeka Monday afternoon. She also talked to the club women of Abilene Wednesday afternoon.

Twenty advanced students in dairy stock judging, accompanied by O. E. Reed, assistant in dairying, went to Holton, April 22, to judge the herd of R. J. Linscott. Mr. Linscott has one of the largest and best known herds in Kansas.

The members of the English faculty receive many letters from persons desiring to know of good texts for English work. Miss Estella Boot, assistant in English, has completed a list, or bibliography, of the best works on rhetoric and composition.

Charles R. Richards, dean of engineering at the University of Nebraska, made a visit of inspection to the college shops April 15. A pleasant feature of Dean Richard's visit was the meeting with several alumni from the University of Nebraska who are on the staff of instruction here.

ALUMNI NOTES.

Mrs. Lena (Finley) Mason, '05, visited college friends recently. Her home is at Cawker City.

Mrs. Mayme (Alexander) Boyd, '02, of Phillipsburg, Kan., and small son are visiting Mrs. Boyd's parents in Manhattan.

Frank Dawley, '95, visited in Manhattan, recently, while on the way from Kansas City to his home at Osborne, Kan.

Mrs. Henrietta (Willard) Calvin, '86, has announced the marriage of her daughter Ruth and Walter Clarence Yoke, at Lafayette, Ind.

O. H. Halstead, '95, and his wife and his daughters have come to Manhattan from St. Joseph, Mo., where they spent the winter. They will remain in Manhattan.

Edgar A. Allen, '87, who has been in the Indian Service for many years, has just been appointed superintendent of the Indian School at Chilocco, Okla. Superintendent Allen was a teacher at Chilocco fifteen years ago and there married Miss Ida Johnson, another teacher. Their return to Child-co will therefore be especially interesting.

The April number of the *Century Magazine* includes a sprightly letter from F. A. Waugh, '91, head of the division of horticulture, Massachusetts Agricultural College. Professor Waugh treats, in his inimitable manner, the value that cooking might be made to men as a sport. He dilates especially upon its fascinations in connection with hunting and fishing, but alleges scarcely less entertainment within the confines of Mrs. Waugh's kitchen.

Kettles may be thoroughly cleansed by boiling a few potato peelings in them.

TO KILL CANADIAN THISTLES.

Two Methods That Are Recommended by Professor Roberts.

Every farmer should know how to kill Canadian thistles. Two methods of doing this are recommended by H. F. Roberts, head of the department of botany of the Kansas State Agricultural College.

Shallow plowing is one way of destroying the thistles, for it causes the moisture to rise from the water-supply to the surface.

This treatment will cause the roots of the Canadian thistles to grow near the surface and send out more sprouts that will be destroyed by frequent mowing and burning. After using this process for one year, the roots are dug out by deep plowing in the fall. These roots are gathered and burned.

If there is plenty of straw, the second method may be used. The thistles are covered with the straw and the mulch is tramped well. The straw should extend over the edge of the patch of thistles for ten feet.

Money for the Farm Girl.

Here is one way for the lonesome country girl to occupy her time and besides make some pin money. Choose a small plot of your father's land and plan to raise flowers and vegetables. During the winter work up your trade; that is, get orders for plants. As soon as the season will permit, prepare your garden for planting. Most persons prefer to buy their tomatoes, cabbage and the like, to set out. Very little money is needed with which to start. The geraniums and house flowers may be slipped from the big plants in the house. Seeds cost very little. Pansies and violets are hard to start for the woman who does her own housework, and your garden would be the place to raise these plants. Remember that it will take time to care for the garden properly, especially in the spring. By intelligent planning a girl should be able to have flowers or vegetables to sell at least seven months out of the year.

A FEW TIMELY HINTS.

Spring is Here With Its Many, Many Suggestions for Work.

Oil up the work harness.

The neglected colt or calf will prove profitless.

Cattle will never do well in the same pasture with sheep.

Wood charcoal should always be kept in the hog pen.

How are the farm implements? Any of them need repairs?

To improve live stock requires intelligence and thought.

It is a good plan to have the horses and cows clean up their mangers after each feed.

There is such a thing as overfeeding. Feed stock all the food they will assimilate, but not more.

Don't have a lot of manure lying in the yards all summer. It will lose just about half of its value by fall.

It is better to feed the cows fodder and hay after milking, as it keeps the dust down. Feed the grain before milking.—*Exchange*.

Take Off the Harness.

If you want to give your horses a real resting-time at noon, slip the harness off and rub them down a bit when you come in from a hard job. It takes only a minute and it will do the team more good than all the hay and grain you feed them.—*Farm and Fireside*.

In Sugar-Beet Land.

C. O. Townsend, who has been a sugar-beet expert in the bureau of plant industry in Washington, is now with the Garden City sugar-beet factory. A chemist and bacteriologist has been detailed by the bureau to work with Mr. Townsend.

Oats for Calves.

Oats are a great feed for the calves. They are very nourishing and invigorating, and the chewing process has a tendency to start the saliva which, when mixed with the gastric juices of the stomach, makes digestion easier and more complete.—*Farm World*.

TO TREAT ALKALI SOIL.

IT MAY BE IN A BAD CONDITION, BUT IT'S NOT HOPELESS.

Crop Rotation is the Best Way to Utilize Slightly Alkaline Lands—How to Prevent Evaporation from the Ground.

A farm with an alkali soil is in a bad condition—but not hopeless. It can be reclaimed. The best way to utilize slightly alkaline lands is to occupy them with crops not affected by the noxious salts. Such crops as cane and kafir-corn may be grown on lands not affected too badly by alkali. If alkali rises so rapidly that the soil becomes almost saturated and thereby unfit for growing any crops, reclamation should begin at once.

Alkali in any soil comes from the subsoil—away down deep. Evaporation of the soil moisture at the surface is what brings the alkali to the level where the main injury to plants happens.

If evaporation is prevented, these strong, injurious salts will not come to the surface and eat the tender plants. That, then, is one way to reclaim. And it is done—this prevention of evaporation—in three ways: shading, mulching, and keeping the soil at the surface well cultivated.

WHEN TO MULCH.

Mulching is practiced in the case of young orchards. The young trees are protected in this way until they become large enough to protect themselves with their own shade, when the mulch is needed no longer.

Straw, leaves, or manure may be used to make the mulch. These involve more trouble and expense than the simple maintenance of a loose surface soil mulch throughout the dry season. As such a mulch is necessary, anyway, to the cultivation of some garden crops and hoed field crops, it is an inexpensive method of reclamation.

Some field crops, when once established, will do well on a slightly alkaline soil, provided a good stand has been obtained. This is true of alfalfa. The alfalfa seed is sensitive to "black" alkali and is very likely to be ruined by it. To prevent this, it is well to use gypsum when sowing alfalfa. This neutralizes the "black" alkali and leaves it harmless. Then, when the alfalfa has grown to a good stand it may live for many years without a sign of injury.

"LEACHING DOWN."

Then there is the "leaching-down" method of reclamation, in which the soil is kept flooded with water for three days to a week, when the alkali salts will be carried deep enough into the soil to prevent further injury—for a few years at least. This method is not possible except where an abundance of water is accessible. It is used in irrigation districts.

The final and universal treatment for alkali soils is under-drainage by tile. This treatment of a land will remedy all the evils of alkali. Its only drawback is the first expense. Private persons use the underdrainage method sometimes, but generally it requires coöperation or assistance from the government to make this method feasible. When once this drainage system is built, it remains good indefinitely.

IT WILL DO.

A Farmer's Plan for a Cement Roller—His Plans.

A Kansas correspondent writes: "I am thinking of making a cement roller for general farm use. I have two cart wheels, thirty inches in diameter, connected by an eight-foot axle. I intend to fill the space between the wheels with crushed rock, sand, and cement. Would this make a serviceable farm roller, and could two average-sized horses handle it? In what proportion would you mix the ingredients?"

Yes, it would be possible, by building a form between the two wheels, to fill the space with cement, sand, and crushed rock or gravel and make a good roller. A roller of this size, eight feet long and thirty inches in

diameter, would weigh about three tons, which would make a heavy load. One part of cement to two parts of sand to four parts of crushed rock or gravel is about the correct proportion for this kind of construction.—*Wal-lace's Farmer*.

THREE MEALS FOR 75 CENTS.

Some Menus Suitable for Students or Office Workers.

Just for a change THE KANSAS INDUSTRIALIST offers its readers, this week, a menu especially suitable for students or office workers. These three meals can be served at a cost of 75 cents for a family of four. According to these figures, a student should eat about 19 cents' worth of food a day, or \$1.33 a week. An extra "spread" could be served Sunday for an extra seven cents apiece. This may seem "slim," but look at what you can get for the money:

BREAKFAST

Eggs with Cream in Ramekins
Buttered Toast
Coffee

DINNER

Fish Steaks, Baked
Mashed Potatoes
Cake

Drawn Butter Sauce
Buttered Parsnips
Orange Sherbet
Coffee

SUPPER

Milk Toast
Marmalade
Cottage Cheese
Cocoa

Eggs with Cream in Ramekins.—Fill each buttered ramekin one fourth full of scalded milk or cream. Carefully break an egg in each and place in a shallow dish partly filled with water. Put into a moderate oven. When the egg begins to set, take ramekins from oven, sprinkle salt and pepper and a teaspoonful of grated cheese over each egg. Replace in oven. Cook until the eggs are sufficiently set and the cheese is melted. Serve at once.

DICKINSON COUNTY WON.

The Interscholastic Track Meet was a Decided Success.

The first annual interscholastic track meet of the fifth congressional district was held April 15 on the new athletic field of the Kansas State Agricultural College. Dickinson County High School, at Chapman, took first place, getting 53½ points; second place went to Alma with 29 points.

Gorman, of Dickinson, equalled the state high school record in the quarter, circling the track in 60½; Hall, of Junction, set a new record for the discus, 102.7 feet. R. Taylor, of Dickinson county, placed in every event.

The prettiest running of the afternoon was done by Root, of Clay Center, who won the mile and half-mile. Clay county took the relay race without much trouble, Alma running second. Moll, of Onaga, won the high jump 5.5.

Buy Good Fruit Trees.

Do not make cheapness the basis of selection of fruit trees and bushes you are going to set out on your place. It takes just as much time and trouble to do the work and just as many years to bring them into bearing as though you had bought and planted good varieties. With the latter you have something to show for your trouble; with the former you have only cumbers the ground, and will get no satisfactory returns in the way of fruit. How foolish!

Who'd Read It?

One of these days some one will go to a ball game and, in a perfectly good English way, using the English language for the purpose, and bringing the dictionary and the encyclopedia in for as much as they're worth, write it up that way. And then no one will read it and the writer will lose his job. But it would be entertaining, just once, to see a baseball game described in language that would pass muster in a biblical seminary.—*The Hutchinson News*.

Carry Heat a Long Way.

Some of the pipes that carry heat to the college buildings are more than three fifths of a mile long. If you think it a task to keep the house warm with a furnace, consider the heat and power department's problem, on a cold day.

GROW A FEW VIOLETS.

QUICK SELLERS, FOR THE FRAGRANT ENGLISH VARIETY.

Not Particularly Hard to Cultivate, Especially if You Have a Hotbed—The Profit is Worth Your Consideration.

"The wild, pale violet, soft and sweet, That we buy in the crowded city street."

Ten cents a dozen, three dozen for twenty-five cents—that's the way they sell. Three dozen English violets, fragrant and beautiful, interspersed with leaves, makes as beautiful a little bouquet as anyone could wish.

English or sweet-scented violets have so many admirers that most greenhouse men label them "best sellers." These experts will tell you, also, that it is the delicious fragrance of the English violets that makes them so popular. Those who buy flowers want fragrance in their bouquets, and some persons even prefer fragrance to beauty.

Because English violets have this charming asset they are far more salable than the native violets that will be found soon blossoming on the cool banks of woody streams, or in shady spots along the country roads. That is the habitat of the English violets, too—a cool, damp place, with little sunshine. For that reason they are grown easily in a greenhouse, and cheaply, too, for much less fuel is required to keep the temperature at the necessary forty-five to fifty degrees than the much higher temperature necessary for rose culture indoors.

If you would like to grow a few yourself—they're no trouble at all—you can buy the plants very cheaply from growers who are glad, generally, to thin out their beds. A small bed on the north side of the house would be suitable for them. Violets do well in any good, well-enriched soil. But the best results will be obtained from a soil composed of well-rotted manure and a sod taken from a rather heavy, sandy loam. Mix this well. Set out the plants late in April about twelve inches apart and keep them watered. They will need a good deal of moisture throughout the summer, and to keep a constant supply for them give the bed a liberal top-dressing of manure as soon as the plants start to grow. They should bloom early next spring.

BUT HE KEEPS BOOKS.

A. J. C. Lowe Tells of His Experience Last Year With Swine.

At the farmers' institute recently, A. J. C. Lowe gave a very interesting talk on hog raising, which was well worth two days' time of any farmer to hear. He said he had kept close account of the business for several years and knew just what he was doing. He figured that his brood sows were yielding him a profit of 200 per cent on the money invested. Here are his figures on three sows for last year:

The three sows raised two litters each, making in all 61 pigs, and they were sold for \$630. Counting the value of the sows, deducting the cost of feed for the entire lot, it left Mr. Lowe a profit of 200 per cent on his investment. This is equal to one sow making her owner \$210 per year.—*The Pleasanton Observer*.

Rehearsals are Progressing.

Rehearsals for the play to be given by the cadets on April 27 are progressing. E. P. Johnston, assistant in public speaking, is training the cast. "By the Enemy's Hands" is the name of the play. It will be given in the college Auditorium. The cadet band will furnish the music. Sabre drills and military specialties will be a part of the evening's entertainment.

"THE WASTE OF WAR."

The Subject of David Starr Jordan's Address for Commencement.

David Starr Jordan, for the annual Commencement address at the Kansas State Agricultural College, will have as his subject, "The Waste of War."

David Starr Jordan is president of Leland Stanford University in California.

THE WINTER SCHEDULE.

A List of Instructors, the Hours and Number of Students.

Class periods are in bold-face type. Departments are arranged alphabetically.

Agronomy.

Professor Jardine: 2, S. C. Crop Improvement, TWFS, 60.

Professor Ten Eyck: 1, S. C. Farm Management, MS, 63. 3, Farm Management, 1st $\frac{1}{2}$ term, TWTF, 58. 5-6, 1st $\frac{1}{2}$ term, Tu and F or S. Farm Management Lab, 58.

Assistant Professor Call: 1, TWTF, S. C. Crop Production, 229. 2, TTS, Soils I, 69. 3-4, TT, Soils II Lab, 1. 3-8, Soils IV, 2. 5-7, Soils I Lab, (assisted by Mr. Lill), M, 25; Tu, 21; Th, 21.

Assistant Schafer: 1-2, Grain Judging I, MS, 43; WF, 32. 3-4, Farm Crops I & II Lab, MS, 49; TT, 26. 4, W, Farm Crops I & II, 73. 5-6, S. C. Grain Judging, MS, 71; TT, 71; WF, 76.

Assistant Chase: 1-2, S. C. Farm Mechanics, M, 59; S, 59. 1-2, Farm Mechanics I & II Lab, TT, 16; WF, 13. 3-4, S. C. Farm Mechanics, M, 57; S, 54. 4, Farm Mechanics I & II, TT, 40; WF, 56. 5-6, Farm Mechanics I & II Lab, TT, 20; WF, 22; MS, 26.

Assistant Nash: 7-8, TT, S. C. Crop Judging, 30.

Assistant Lill: 5-6, S. C. Soil's Lab, (with Mr. McKee), TT, 32; WF, 30. 5-7, Soils I Lab, (assisting Professor Call), M, 25; Tu, 21; Th, 21.

Mr. McKee: 5-6, S. C. Soils Lab, (with Mr. Lill), TT, 32; WF, 30.

Animal Husbandry.

Assistant Paterson: 2, Tu, S. C. Market Classes and Grades of Stock, 222; S. Meats, 26. 3-4, MS, Stock Judging I, 50; WF, S. C. Stock Judging, 33. 5-6, M, S. C. Meats, 60; Th, Meats Lab, 26.

Assistant Wright: 1, TWTF, S. C. Animal Breeding, 58; F, Breeds, 62. 2, S. C. Live Stock Feeding, WF, 222. 3, Live Stock Feeding, TWTF, 31. 5, WF, History of Breeds, 39.

Mr. Hunt: 5-6, S. C. Stock Judging, TT, 60, WF, 71. 7-8, WF, Stock Judging I, 24; TT, Stock Judging II, 25.

Mr. Kinzer: 5-6, MS, S. C. Stock Judging, 104. 7-8, MS, Stock Judging I, 33.

Applied Mechanics and Hydraulics.

Professor Seaton: On leave of absence during season 1910-11. Classes in Applied Mechanics taught by Professor Conrad and Assistant Jablow.

Architecture.

Professor Walters: 1, Architectural Composition, TWTF, 3, 2, Public Buildings, TWTF, 7. 3, Specifications, TWTF, 8. 4, Trusses, TWTF, 10. 5-6, TWTF, Architectural Composition, Trusses Lab, etc., 15. 1-4, 5-6, MS, Architectural Drawing IV, Decoration, Public Buildings Lab, etc., 32.

Instructor Weeks: 1-2, Home Decoration, MS, 21; Color & Design I, WF, 9. 3-4, WF, Color & Design I, 21; MS, Object Drawing, 39. 5-6, MS, Home Decoration, 25; TT, Color & Design II, 12; WF, Color & Design I, 27.

Assistant Putnam: 1-2, MS, Object Drawing I, 43; WF, Freehand Drawing, 47. 3-4, Object Drawing I, MS, 33; WF, 19. 5-6, MS, Object Drawing I, 47.

Assistant Harris: Descriptive Geometry I, 1-2, TT, 43; WF, 29. 5-6, MS, 42; WF, 14. Projection Drawing, 1-2, MS, 25; 3-4, TT, 23. 3-4, MS, Shades and Shadows, 9. 5-6, TT, Modeling I and Modeling II, 16.

Assistant Morton: 1-2, MS, Object Drawing I, 35; WF, Geometrical Drawing, 37. 3-4, MS, Object Drawing I, 34; TT, 21; F, Geometrical Drawing, 32. 5-6, M, Geometrical Drawing, 45; Tu, 21; WF, Object Drawing I, 24.

Bacteriology.

Professor Slack: 1, S. Sanitary Biology, 3. 2, Bacteriology II, MS, 26. 5-6, TT, Bacteriology II, Lab, (assisted by Mr. Hayes), 26. 5-6, MS, Household Bacteriology Lab, 29. 7, Serum Therapy, etc., WF, 22. 7-8, Serum Therapy, etc., Lab, Tu, 29.

Instructor Bushnell: 1-2, MS, Household Bacteriology, 16. 3-4, MS, Sanitary Biology Lab, 3. 4, WF, Dairy Bacteriology, 14. 5-6, WF, Dairy Bacteriology Lab, 14; S, S. C. Dairy Bacteriology, 9.

Assistant Hayes: 3-4, MS, Household Bacteriology, 35. 7-8, MS, Household Bacteriology, 18. 5-6, TT, Assisting Dr. Slack with Bacteriology II Lab, 26.

Botany.

Professor Roberts: 3-4, MS, S. C. Agricultural Botany (with Mr. Rose), 51. 5-6, Elementary Botany II Lab, M, 34; S, 35.

Assistant Professor Davis: 1, TT, Plant Physiology I, 31; WF, Botany II, 38. 1-2, Botany II Lab, (with Mr. Graff), M, 34; S, 30. 3-4, Plant Physiology I Lab, (with Mr. Miller), WF, 17; MS, 24. 6, TT, Botany II, 37.

Assistant Rose: 2, WF, Botany I, 28; TT, Botany II, 41. 3, WF, Botany II, 38; TWFS, Plant Physiology I, 10. 4, TT, Botany II, 51. 3-4, S, C. Agricultural Botany (with Professor Roberts), MS, 51. 5-6, M, Botany I Lab, 30; S, Botany II Lab, 30.

Assistant Graf: 1-2, Botany II Lab, (with Mr. Davis), M, 34; S, 30. 3-4, Botany II Lab, M, 36; S, 33. 4, WF, Botany I, 30. 5-6, TT, Botany I, 21; WF, Botany II, 26. 5-6, Botany II Lab, M, 32; S, 34.

Assistant Miller: 1-2, M, Botany I Lab, 27; S, Botany II Lab, 21. 3-4, Plant Physiology I Lab, (with Mr. Davis), MS, 24; WF, 17. 6, WF, Botany I, 13.

Chemistry.

Professor Willard: 1, TWTF, Physiological Chemistry II, 6. Chemistry III (old) 2nd $\frac{1}{2}$ term, TWTF, 32.

Assistant Professor King: 2, TTS, Inorganic Chemistry II, 5; W, Chemistry II (new) (Lee), 96; F, Chemistry II (new) Rec, 64. 3, TuS, Chemistry I & II (old) Rec, 34; W, Chemistry I & II (new) (Lee), 89; F, Chemistry II (new) Rec, 51. 4, ThS, Chemistry I (new) Rec, 29. 5, TuS, Chemistry I & II (old) Rec, 23; W, Chemistry II (new) Rec, 99; F, Chemistry II (new) Rec, 37. 6, Chemistry II (new) Rec, F, 42; M, 25.

Assistant Professor Wheaton: 3, MTH, Chemistry I & II (old) Rec, 106-117; TuS, Chemistry I & II (old) Rec, 35-46. 4, MTH, Chemistry I & II (old) Rec, 46-61; TuS, Chemistry I & II (old) Rec, 53. 5, Tu, Chemistry I (new) Rec, 205; ThS, Chemistry I (new) Rec, 53; MWF, Organic Chemistry II, 2. 6, TWTF, Chemistry II (old) 1st $\frac{1}{2}$ term, 70; Chemistry III (old) 2nd $\frac{1}{2}$ term, 37. 6, Organic Chemistry II Lab, 2, 4 Hrs by arr.

Assistant Professor Swanson: 1, MS, Agricultural Chemistry I, 21. 5-6, MWFS, Ag. Chem. I & II Lab, 20; TT, Ag. Chem. II Lab, 18. Quantitative Analysis and special, 10.

Instructor Newman: 1, M, Chemistry II (new) Rec, 38; TuS, Chemistry I & II (old) Rec, 28. 1-2, W, and 3-4, WF, Assisting Mr. Gutsche in Chem. I & III (old) Lab, 34. TT, assisting Mr. Hughes with Chem. II (new) Lab, 34. MS, Chem. III (old) Lab, 29. 3, ThS, Chemistry I (new) Rec, 28. 5, Chemistry I (new) Rec, 46. 6, Chemistry I (new) Rec, 55. 5-6, WF, assisting Mr. Gutsche in Chem. I & III (old) Lab.

Assistant Hughes: Chemistry II (new) Lab, 1-2 (with Mr. Gutsche), MS, 45; TT, 31. 3-4, MS, 40; TT (with Mr. Newman), 54. 5-6 (with Miss Lewis), TT, 59; MS, 45. Assists Miss Lewis in Chemistry I (new) Lab, 5-6, W, and Mr. Gutsche in Chem. I & III (old) Lab, 1-2, F, and 1-2, TT.

Assistant Gutsche: 1-2, WF, Chem. I & III (old) Lab, 42 (assisted by Mr. Newman, W, and Mr. Hughes, F, and also TT); TT, 8. 3-4, WF (with Mr. Newman, Chem. I & III (old) Lab, 57. 5-6, Chem. I & III (old) Lab, WF (with Mr. Newman), 42. 5-6, MS (with Mr. Utt), Chem. III (old) Lab, 39. Assists Mr. Hughes, 1-2, MS, TT, and 3-4, MS.

Assistant Utz: Assists Mr. Gutsche in Chem. III (old) Lab, 5-6.

Miss Lewis: Chem. I (new) Lab, 1-2, W, 17. 3-4, W, 33. 3-4, F, 19; 5-6, W (assisted by Mr. Hughes), 60; 5-6, F, 31. Assists Mr. Hughes in Chem. II (new) Lab, 5-6, TT, MS.

Civil Engineering.

Professor Conrad: 3, Hydraulics I, TWTF, 26. 4, Applied Mechanics III (C.E.), TWTF, 22. 5-6, TT, Civil Engineering Lab, 21. 5-7, WF, C. E. Drawing IV, 20.

Assistant Stone: 1, Applied Mechanics II, TWTF, 9. 2, Spherical Trigonometry and Astronomy, TWTF, 16. 3, Hydraulics (E.E.), TWTF, 24. 1-4, 5-6, M, C. E. Drawing I, 13. 1-4, 5, S, Surveying III, 22. 5-6, WF, Surveying VI, 9. 6, S, Surveying II Lee, 18.

Dairy Husbandry.

Assistant Professor Reed: Milk Production & Herd Management, Lee, 1. TT, Lab, 5-6, M, 7. 4, S. C. Dairying, TWTF, 25. 5, S. C. Dairying, 46. 7-8, MS, Library, 8; WF, Dairy Stock Judging, 23.

Assistant Rudnick: 1-4, MS, S. C. Dairy Lab, 120. 1-2, TT, S. C. Dairy Refrigeration, etc., 8. 2, WF, Cheese & Ice-cream Making, 8; Lab, 5-8, Tu, 8. 5-6, MTh, Judging Dairy Products, 8.

Assistant Fitch: 1, S. C. Creamery Buttermaking, WF, 8. 3, S. C. Creamery Management, TWTF, 8. 4, MS, Creamery Management, 9. 1-4, MS, S. C. Dairying Lab, 110. 5-8, S, Creamery Buttermaking, 9; WF, S. C. Buttermaking, 8.

Assistant Jacoby: 1-2, S. C. Poultry, M, 56; S, 55. 3-4, S. C. Poultry, M, 57; S, 55.

Domestic Art.

Professor Becker: 1-2, TT, Sewing III, 17. 4, S, Domestic Art IX Lee, 13. 5-6, WF, Sewing II, 21; TTS, Dressmaking, 14.

Instructor Stump: S. C. Dressmaking, TWTF, 1-2, 13; 3-4, 17; 5-6, 19.

Instructor Cowles: S. C. Dressmaking, TWTF, 1-2, 16; 3-4, 16; 5-6, 18.

Assistant Donaldson: 1-2, TT, Sewing III, 13; WFS, Dressmaking, 13. 3, Sewing I Lee, S, 11. 4, Sewing II Lee, S, 20. 3-4, TT, Sewing II, 21. 5-6, WF, Sewing II, 18.

Assistant Byerly: 1-2, TTS, Sewing I, 13; WF, Sewing II, 14. 3-4, WFS, Sewing II, 12; TT, Sewing II, 20. 5-6, TTS, Dressmaking, 12.

Assistant Fortney: 1-2, WFS, Sewing II, 12. 3-4, TTS, Dressmaking, 15. 5-6, WFS, Domestic Art IX Lab, 15.

Assistant Schrepel: 1-2, TT, Sewing I, 12; WF, Sewing II, 14. 3, Th, Sewing II Lee, 23. 3-4, Sewing II, WFS, 8. 5-6, TTS, Sewing II, 11.

Domestic Science.

Professor Van Zile: 5-6, TWTF, Domestic Science XI Lab, 44.

Assistant Professor Dow: 1, WTS, Household Sanitation, 18. 2, S. C. Home Nursing, TTS, 36. 3, Domestic Science XI, TTS, 44. 4, Household Sanitation, TWTF, 44. 5, S. C. Home Nursing, TTS, 36.

Instructor Lindsey: 1-2, TWTF, Domestic Science I (old) Lab, 20. 2, TT, Domestic Science I (old) Lee, 34; 40; 4, 31. 5-6, Domestic Science I (old) Lab, TWTF, 31.

Assistant Huse: 2, Domestic Science I (old) Lee, TWTF, 35. Domestic Science I (old) Lab, 20. 3-4, TWTF, 22; 5-6, TWTF, 21.

Assistant Miles: 3-4, 5, TWTF, Dinner Work (with Miss Noyes), 35.

Assistant Noyes: 3-4, 5, TWTF, Dinner work (with Miss Miles), 36.

Assistant Stephens: TWTF, S. C. Therapeutic Cookery, 1-2, 17; 3-4, 19. 5-6, TT, Domestic Science I (new) Lab, 20. 2, TT, Domestic Science I (new) Lab, 20. 3-4, WF, Domestic Science II (new) Lab, 20. 2, TT, Domestic Science II (new) Lab, 20. 3-4, WF, Domestic Science II (new) Rec, Tu, 32.

Assistant Humphrey: S. C. Advanced Cookery, TWTF, 1-2, 18; 3-4, 17. Domestic Science I (new) Lab, 5-6, TT, WF, 16.

Economics and Public Speaking.

Professor Kammeyer: 1, TWTF, Economics, 48. 3, Bus, Org, & Wage Problems, TWTF, 11. 4, Public Speaking, TWTF, 26. 5, Sociology, TWTF, 24.

Assistant Johnston: TWTF, Public Speaking I, 1, 29; 2, 30; 5, 22.

Electrical Engineering.

Professor Eyer: 2, A. C. Machines I, TWTF, 24. 5-6, WF, A. C. Mach. I Lab, 12; TT, Illumination, 1.

Assistant Lane: 3-4, S, D. C. Design I, 23. 5-6, TT, A. C. Mach. I Lab, 12.

English.

Professor Brink: English Literature II, TWTF, 1, 43; 3, 38; English Literature, 2, TWTF, 35.

Assistant Cunningham: 3-4, M, Spraying, 15. 7, S, Citrus Pomology, 8. S, C. Horticulture Lab, 5-6, MS, 36; TT, 41; WF, 27. 7-8, WF, 22.

Associate Professor Pearson: 1, TWTF, El. Composition, 27. 2, TWTF, College Rhetoric, 31. 3, TWTF, Rhetoric I, 30. 4, TWTF, English Readings, 43.

Assistant Professor Beall: 1, TWTF, American Literature, 4, Eng. Lit, 1, 2, MWFS, 25; 5-6, TWFS, 32; 6, TWTF, 26.

Instructor Rice: 1, College Rhetoric, 29. 2, Classics, 36. 3, English Readings, 21. 6, College Rhetoric, 26.

Instructor Leonard: Advanced Composition, 1, 35; 2, 36. Advanced Grammar, 3, 35; 5, 23.

Assistant Furley: 3, Advanced Composition, 28. 4, Elementary Composition, 22. 5, Elementary Composition, 12.

THE KANSAS INDUSTRIALIST

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Number 30

USE CURRENT TO HATCH.

ON ONE RANCH IN THIS STATE ELECTRICITY HEATS THE INCUBATOR.

Kansas Farmers are Awake—They use Modern Machinery and Arrange for Tile Drainage and Bring Power from a Distance.

Work on one farm in Kansas does not have to stop when daylight fails. At the Ringle ranch, in Reno county, electricity is used so freely that when there is a rush the electric current furnishes plenty of light. So completely has electricity been installed on the Ringle ranch that motors supersede windmills, and the chickens in the incubators are being heated by electricity. And, of course, the farm machinery is driven by the current. The houses and barns on the ranch are lighted by it.

Kansas farmers are awake. They are adopting modern methods and machinery. The old horsepower has been supplanted by the gasoline engine, and this now seems fated to give way to the electric motor.

Many small towns in the state are arranging to get electricity from near-by cities, and farmers living along the power lines will be supplied. Nickerson, Arlington, Partridge, Abbyville, and others in Reno county, are adopting this plan.

Tile machines are being installed throughout the state, and cement tiling is used in sub-irrigation projects. At a place known as Root's Model Farm, in Wichita, many persons gathered recently to see a new method of sub-irrigation installed. In this project, cement tile are laid rapidly by a patent tile machine, which provides an equal distribution of moisture to growing plants throughout the season.

The farmers' institutes all over Kansas are attended well. The subjects now discussed may have sounded as Greek to the average farmer of a decade ago. The silo is just coming in for another round of discussion along with lectures on feeding stock.

The telephone, the interurban car line, the rural mail delivery, all combine for the farmers' convenience. The most gratifying feature is that Kansas farmers are taking advantage of all these opportunities for progress.

THE ARMY PLAY ENJOYED.

Eighteen Hundred Persons Saw the Cadets in "By the Enemy's Hands."

"It's a way we have in the army which nobody can deny."

The cadet boys entertained a large and appreciative audience, Thursday night, with their military play, "By the Enemy's Hands," at the college Auditorium. The military atmosphere was there, all right, from the time the curtain arose on the colonel's maid with the dust rag and the grand opera aspirations until the play ended with the heroine in the hero's arms and the colonel blessing them both.

The play dealt with the troubles in the romance of the colonel's daughter, Alice Aylesworth, and Lieutenant Parker. A villainous captain, who conspired with an Indian chief, caused most of the trouble. The cause of justice triumphed as might have been expected, the villain was killed, the Indian gave up slaying the paleface, and all the young folk in the play got married. The third act closed with a thrilling attack on Fort Clay by the redskins, who stormed one wall of the fort aided by the treacherous Captain Boyd. The garrison was saved through the heroism of Lieutenant Parker, who retook the captured gun and drove the Indians back.

Harold O'Brien made a dignified colonel. Ruth Haller Bates was a winsome colonel's daughter, and went through the love scenes, always so trying to amateurs, exceedingly well. This young woman has exceptional

talent, gets her words out properly, and knows how to act. Elmer Graper as the hero and Ernest Smies as the villain played their parts well. Aline Karr, in the role of a temperance reformer from "the dear East," and William Hays as the doctor with a universal panacea, kept the audience in a roar with their amusing escapades. Raymond Russell's portrayal of the missionary to the Indians was very good. Butt's Manual Sabre Drill, by officers of the Cadet Corps, physical drill and bayonet exercise were the specialties between acts.

The play was staged under the direction of E. P. Johnston, of the department of public speaking. The proceeds will be used to buy regimental colors and to help furnish the new home of the military department in Nichols Gymnasium. More than 1800 persons enjoyed the evening's entertainment. The cast:

Colonel Aylesworth, Commandant at Fort Clay Harold D. O'Brien
Captain Boyd, Officers at Fort Clay Ernest Smies
Lieutenant Parker, Fort Clay Elmer Graper
Corporal Quimby, who stutters Louis Hutto
Doctor Sharp, Regimental Surgeon Lucian Hobbs
Rev. Pennington, Missionary to the Indians Raymond Russell
Prof. Adolphus Dobbs, A doctor with facial St. Vitus dance Wm. Hays
Lone Star, Chief of the Sioux Indians Willard Murphy
Wifies, a camp follower Charles Stacy
Alice Aylesworth, the Colonel's daughter Ruth Haller Bates
Mrs. Stiggins, a temperance reformer Aline Karr
Sally, maid at the Fort, with passion for opera Florine Fate
Retawah, Lone Star's daughter Irene McCreary
Courier Frank Cross

A WRITERS' CLUB HERE.

Roy I. Davis Heads an Organization of Industrial Journalism Students.

The students in industrial journalism at the Kansas State Agricultural College have formed a writers' club. The purpose of this organization is to promote a fraternal feeling among the members, to benefit one another in every way possible. The club will give, at frequent intervals, a program relating to newspaper work. These programs will not be given before the club alone, but in public meetings. Neither are they to be so narrow as to interest only the students in industrial journalism. It is the aim of the club to make them of such importance as to interest everyone.

The movement to organize was started about the middle of April. After a few days, a constitution was framed and adopted, and the following officers were elected: For president, Roy I. Davis; vice-president, Martin Laude; for secretary, George B. Holmes; for treasurer, Speer Calen.

A program for the first open meeting has already been arranged and will be given soon. The members have not decided on a name for their organization. This will be considered later.

The Yellow Peril.

One of the seniors, who has been noting the struggle of the horticultural department against the prolific dandelion, has come across with an idea. This idea is almost startling in its simplicity. The women's clubs all over Kansas have succeeded in establishing "clean-up" days, when every body in town gets out and cleans up the streets and alleys. Why not have a "dandelion day" at the Kansas State Agricultural College? Have every student—every member of the college family—bring to college with him some morning a sharp knife, or other implement of agricultural warfare, and spend the chapel hour rooting up the offensive plants? President Waters could lead the assault on the yellow peril in front of Anderson Hall. This would afford the cadet corps an excellent opportunity to try the temper of their bayonets on a live enemy, and bring the entire student body in closer touch with the college campus.

Another grower who had good success used a different system. The soil was prepared in about the same way, but the seed was planted in hills, twelve inches apart each way, and covered with an inch of earth. After this they were covered with hay four or six inches deep. Nothing more was done until harvesting. After the old mulch was cleared away the ground

RURAL EDITOR A BOSS.

IN THE CITY, SECRETARY SESSIONS SAYS, HE WOULD BE A COG.

BEGIN IN THE SMALL CITY, THE OLD WASHINGTON WRITER'S ADVICE—STORIES OF A HARD LIFE IN THE NATIONAL CAPITAL.

The place to begin the newspaper business is on the country newspaper. Stick to the small paper and the small city. You can amount to something there. You will be consulted; you will have a lot of influence. In the city you can work for twenty years, perhaps, only to find that you are a cog in a big machine. And about that time you are replaced by a new cog. The country develops an all-round man; the city a narrow specialist.

These are some of the views of Charles H. Sessions, secretary of state of Kansas, who spoke in chapel Tuesday morning, and later to the classes in industrial journalism in Kedzie Hall.

Secretary Sessions, who is an experienced newspaper man, told something of the life of a correspondent in Washington. One third of the news published in the United States, he said—excluding market reports and sporting news—comes from the national capital. The position of Washington correspondent is sought eagerly. A few years' experience generally is enough; 80 per cent of the correspondents are glad to return to less important positions, that pay better in the long run, and allow more scope for originality. Secretary Sessions admitted that it was a pleasant and valuable experience.

Referring to the free press, he told of conditions in Mexico where no paper considers it worth while to send a reporter to sessions of the Mexican congress, owing to censorship, but prints the "news" sent out by President Diaz's secretary. This state of affairs, compared to Washington, where there is a small army of reporters, is an example of the difference between the two countries.

Secretary Sessions, Dean Webster, and Dean Brink were the guests of the domestic science department at an informal dinner after the address in Kedzie Hall.

AN ACRE OF POTATOES, \$300.

THE SUCCESS THAT ONE FARMER HAD BY USING MULCHING.

An acre of potatoes that had no cultivation produced a profit of \$300. Such was the success of a farmer in Coffey county, Kansas. His land produced 245 bushels an acre, and they were sold at prices ranging from \$1.15 to \$1.35 a bushel.

His success was due principally to mulching. The land was prepared partly in the fall. The ground was covered with fifteen loads of well-rotted manure an acre, after which it was plowed.

The land was plowed again in the spring and furrowed two and one half feet apart with a common plow. Good seed cut to two eyes was planted about eighteen inches apart and covered by harrowing. As soon as the potatoes began to come through the ground they were covered with a layer of old hay, four to six inches in depth. They had no further attention until harvesting time, the mulch keeping down the weeds and holding the moisture. Straw will do for mulching if it contains no grain. It is advisable to select a well-drained plot.

Another grower who had good success used a different system. The soil was prepared in about the same way, but the seed was planted in hills, twelve inches apart each way, and covered with an inch of earth. After this they were covered with hay four or six inches deep. Nothing more was done until harvesting. After the old mulch was cleared away the ground

was covered nearly with potatoes. More than seventy-five per cent were on top of the ground, and the remainder very near the surface. The potatoes were very large and made a good yield. Potatoes grown in this manner kept much better than those raised without mulching.

FAGOTING STOPS WASTE.

THE PRUNINGS OF ORCHARD AND FOREST TREES MAY BE USED.

Because they do not utilize the prunings of orchard and forest trees, the people of the United States are wasting much good material. In other words, they do not understand the virtues of fagotting.

When the trees are pruned, the twigs and branches cut off are bound in bundles, or fagots. These fagots are used as fuel and in the manufacture of wood pulp. As a fuel, the value of fagots is not so high as coal and cobs, but they are a good substitute when coal and cobs are scarce.

This method of saving this material by fagotting is almost unknown in the United States, but is practiced largely by the people of Europe, who make good use of all twigs and branches cut off by pruning.

FARM STORIES ARE FREE.

WRITE THE PUBLICITY BUREAU OF THE COLLEGE FOR YOUR INFORMATION.

It is the desire of the publicity bureau, in the department of industrial journalism, to furnish, promptly, any story of farming or other industry requested. To newspapers and farm journals in any part of the world this service is free. Every story containing questions of fact or advice is submitted to a member of the faculty, the head of some department teaching the subject, before it is released. This gives every article additional value and prevents error.

This free service has been maintained in the bureau of publicity since the school of industrial journalism was established, last September. No newspaper or farm journal is charged for anything. Requests from any source of that kind are welcomed and attended to as quickly as possible.

THAT IDLE ACRE.

The idle acre is a source of loss and possible financial disaster to its owner. It is a direct and indirect tax upon every producing acre of the farm. It brands its owner as either thoughtless, wasteful, or shiftless—possibly all three. Put it to use, to grow grass, or grain, or timber, or as a pond where the gathered surplus waters of the farm may not destroy the growing crops. In place of its weeds, let it serve some purpose of profit or beauty, and give an accounting for itself at the close of each season such as shall merit the "well done!" of its owner.—*Farm Stock and Home*.

TO DIRECT THE SUMMER SCHOOL.

Edwin L. Holton, professor of rural education, has been appointed director of the summer session for teachers and prospective teachers. President Waters has communicated this fact to the instructional staff with a request for co-operation in every possible way to make the first summer a success.

MUSIC PROGRAM IN ASSEMBLY.

This morning's music program in assembly consisted of E. Lassen's "Thine Eyes so Blue and Tender," sung by M. H. Sims, and J. Beschmitt's "Song of Ossian," sung by the college Glee Club.

If a boy shows a bit of discontent over the dullness of farm life, give him a decent-sized check after harvest and let him have his head in town for a week. It will not ruin him if he is the right sort, but will open his eyes to the sweetness and beauty of his own home.

TO KILL THE CURCULIO.

SULPHUR IS USELESS AGAINST THIS ENEMY OF THE PLUM.

Jarring and also the Arsenical Poisons are Excellent—Be Very Careful Not to Injure the Trees You Treat.

Two methods have been proved successful in destroying the plum curculio, the most common cause of worms in plums and other fruits. Jarring is the method used generally, although some orchardists favor the use of arsenical poisons. Sulphur is of no use in fighting these insects. Its injection into the tree does no good, and the lime-sulphur spray, so beneficial in treating for rots and other fruit diseases, has no effect on curculio.

By the jarring method the bugs are jarred onto a canvas by striking the tree a sharp blow with a padded pole or mallet. The canvas may be stretched on two frames to be carried from tree to tree, or it may be arranged as an inverted umbrella with a box at the bottom to catch the insects as they roll down. One man can do the work with the umbrella arrangement, if the canvas is mounted on a cart so that he can wheel it from tree to tree. These insects "play possum" when they strike the canvas and can be killed by covering with kerosene or by roasting.

WHEN TO JAR THE TREE.

Jarring should begin when the calyx or "shuck" is beginning to slip off the newly set fruit. It should be done every day for four or five weeks, or until the operation ceases to yield many beetles. They drop more readily and are not so likely to get away if the work is done in the morning or in the late evening.

Curculio may be poisoned by spraying the trees carefully with arsenicals. Spraying is favored by some orchard growers because it involves less labor and does not need to be repeated so often as jarring. In using the arsenicals, care should be taken to use them as herein directed or the foliage of the trees may be injured. Arsenate of lead is the least likely to hurt the foliage, but paris green may be used successfully. Liability to injury from these poisons will be greatly reduced by adding to every fifty gallons of the spray the milk of lime made by slackening two or three pounds of good stone lime. The arsenate of lead should be used at the rate of two pounds to fifty gallons of water. In the paris green spray, not more than one pound of paris green should be used to 150 or 200 gallons of water for use on stone fruit.

Several applications are necessary, and they should be as thorough as possible at intervals of eight or ten days. The first application should be made as soon as the blossoms have fallen.

Chickens are very fond of these bugs and will help to destroy them. Cultivation for four or five weeks after the larvae begin to fall will destroy many of the insects. This cultivation should begin about six or eight weeks after blooming. The number of beetles to come later in the season may be lessened by destroying the wormy fruit as it falls.

CHERRY BLOSSOMS FOR "TOMMY"

Miyawaki, Formerly in the Dairy Department, Writes From Japan.

Atsushi Miyawaki, '07, who left America for Japan last month, writes from Yokohama of a successful voyage. It is cherry blossom time in Japan and "Tommy" is glad, he says, to see again the beautiful trees of his home land. "Tommy" was connected with the instructional staff of the dairy department at the Kansas State Agricultural College after his graduation.

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PRES. H. J. WATERS Editor-in-chief
PROF. C. J. DILLON Managing Editor
DR. J. D. WALTERS Local Editor

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The typesetting and other mechanical work is by students in the school of printing, of which J. D. Rickman is superintendent. Both these departments are in Kedzie Hall.

Newspapers and other publications are invited to use the contents of the paper freely without credit.

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SATURDAY, APRIL 29, 1911

CLEAN JOURNALISM.

The famous utterance of the late Charles Dana—was it not?—that anything God permitted to happen was good enough for his paper no longer has standing. The world, especially that part of it upon which rests the responsibility of printing the news, has come to realize that very many things happen, every day and every night, that may just as well go undescribed.

The great pity is that the human family, which is so quick to condemn the owners of newspapers and the men who write them, knows so little of the constant struggle to improve the product.

What a fine thing it would have been if every reader of books and papers in this big country could have heard the inspiring addresses in Columbia, Mo., last week, by Dr. Shailer Mathews, editor of *The World Today*; Charles H. Grasty, editor and owner of the Baltimore *Sun*; George B. Longan, of the Kansas City *Star*; E. St. Elmo Lewis, of Detroit, Mich., president of the National Association of Advertising Managers; Thomas Balmer, advertising director of *The Women's World*, and two or three others. No higher ideals ever were expressed in any profession, no more praiseworthy program of conduct ever was outlined.

Merely as a study of events it was worth while. To a historian it was a most notable occasion—this gathering of Missouri editors in the university's school of journalism. From the West, the East, the North, and the South the distinguished visitors journeyed to Columbia, all, apparently, intent upon one object, and without any prearrangement: the preaching of the gospel of clean journalism, high ideals, independent expression of opinion, a fine regard for the rights of others. And the best thing about the whole week's intellectual entertainment was the fact that more than 200 editors and 175 students of journalism heard the talks. A lot of good may grow out of that meeting.

Hope for the future is found in the steady decline of the yellow press. From yellowism it passed to sensationalism. Like the alleged funny pages of the Sunday papers the yellow press did not last long and the gloomy funny pages are going. Sensationalism in print circulates in the street, but not in the homes, which is where the advertiser demands it. Consequently sensationalism cannot last any more than yellow, yawping journalism can last in the magazines. This class of monthlies Shailer Mathews referred to as "Chewing gum" magazines, because you might read and read and read and get nothing, just as you chew and chew and chew a wad of gum with no effect upon society except disgust.

This kind of magazine writing, Dr. Mathews believed, would die out as the yellows died out. After this, and possibly a spasm of sensationalism, the worthy magazines will remain the leaders in the field of that class of reading matter exactly as certain fine newspapers which disdained to notice the hullabaloo of Hearst and others are now monarchs, Gibraltars of the

newspaper world, solid, dependable friends. One has only to look into the magazines of the eighteenth century and compare them with the several specimens of the intervening years to see the inevitable effect of public opinion. You can't go on fooling the people all the time.

SOMETHING TO SEE.

Lack of amusements in the neighborhood at home is one of the reasons many boys and girls turn to the cities. The excitement soon dies out after an occasional shopping trip to town for the farm children. The attraction of the daily mail train will not always open with wonder the eyes of the town lad. Something more must be provided, and the town merchant is the logical one who should help to do it.

One community in Kansas will have a baseball game every Saturday. A league was organized in the town for just such occasional games. Another will have a series of kite-flying contests and award small prizes to the best exhibitor. The merchants in one small town have subsidized a band. A concert every Saturday evening with a social by some religious organization is the program. A town croquet ground will hold its crowds. A town tennis-court; a public auction every other Saturday where anyone can have any article sold by an auctioneer provided free by the merchants; a produce-marketing contest with a bonus to the one selling the most and best during a given period; all these have been tried in communities with success. While not exactly amusements, these are attractions which offer diversion to the people who are tired of the ordinary routine.

The methods of interesting the country trade varies in different localities. But it is almost a certainty that the ones to be interested are the men on the farms, the heads of families. By the present farm arrangement it is father who goes to town while the boys are in the fields. Father is too old to follow the plow or cultivator and the field must be turned before the next shower, so Will and the hired man must do it. Then father wonders why the boy does not look forward with pleasure to a life on the farm. Let the boys go to town.

Some of the country boys belonging to protective associations organize baseball teams and play another association in town Saturday afternoons. They usually practice Sundays, so there may be some objections to such a diversion. The old spelling school was revived and flourished in some counties last winter. This let in the girls who at once proved that the mastery of "ei's" and "ie's" could be attained.

The band concerts are the best attractions for Saturday afternoons and evenings. It doesn't take much of a musical organization to draw and hold the crowds. Some bands which would pass for clowns in a circus parade, as far as music-making ability is concerned, are effective advertisers. And how the home folks do like to know that "the boys" have been hired to play at a picnic in a neighboring town! It instills community pride. When once this feeling has been established, improvements in that community will come. O. W.

CAREFUL, MR. CITY MAN.

"Back to the soil" seems to be the watchword of the hour. Newspapers and magazines are printing more farm and garden matter than ever before, certain farm periodicals are extending their patronage among city folks in a most unexpected way, and in various localities rural real estate is looking up, says *The Wichita Beacon*.

Now, largely speaking, these are favorable symptoms. It is true that too many folks live in cities and the average American farm is too large, and that by diligence one can achieve a greater degree of freedom on a little farm than he is likely to achieve in a city in any line. And it is a good thing that these facts are being emphasized.

But there is an element of real danger in the "back to the soil" cult, a danger that is enhanced by the very

A GOLDEN TEXT.

For, lo, the winter is past, the rain is over and gone;
The flowers appear on the earth; the time of the singing of birds is come, and the voice of the turtle is heard in our land.—
The Song of Solomon, 2:11, 12.

eagerness with which city folk are taking to the idea. This danger is born of the fact that over-enthusiastic writers of "back to the soil" stories are prone to give their readers mere half-truths, to lay too much stress upon the joys of country life, and to say nothing at all about the thorns that bar the stem of the rural rose.

The danger is this: That folk who know nothing at all about the practical side of farm life may be persuaded to leap before they look. It's tragedy to find yourself on a farm, with your bridges burned behind you, only to find that it takes quite as much gumption and technical knowledge to run a farm successfully as to run a drug store or a grocery—successfully—and that you lack that necessary gumption and knowledge.

Before you go back to the soil be sure you know what it means. Count the cost well, discount well the rosy stories of success in back-to-the-soil ventures—and then, when you are sure of your ground—by all means go back to the soil and stay there. For if you take it right and live it for all there is in it, country life is the best life that a human being can live.

THE AGRICULTURAL PAGE.

This is the way Ewing Herbert wrote, a few days ago, about the agricultural page made up in the department of industrial journalism: "I don't care if all the papers in the town and county use it; send me the Kansas farm page regularly."

You all know Ewing Herbert and the *Brown County World*. It has been an excellent paper for years, an ideal weekly; ideal not only as to contents but also as to size, the handiest size anyone ever printed, outside the office of the *New York Tribune*. Now Colonel Herbert intends further to improve his paper by using the Kansas agricultural page every two or three weeks. That's fine. It proves that the editor of the *World* is in line with present-day interest; he knows what his farmer readers desire.

The Lawrence *Journal-World*, Senator Brady's paper, has established a department called "Country Life in Kansas," in which he prints from two to five columns of agricultural matter from the agricultural college, supplied for the most part through the Western Newspaper Union. It has added to the attractiveness of the paper and increased its rural list of readers.

Among others who have taken advantage of the college's efforts to supply information of interest are William Allen White, of the Emporia *Gazette*, the Salina *Evening Journal*, and the Abilene *Reflector*. These especial papers are mentioned because they are examples of publications that have not heretofore given great attention to farm topics. Now they know where they can get the information and get it correctly prepared, and they are giving it to their readers. This page is now being distributed from Kansas City, Wichita, Lincoln, Neb., and Chicago.

IN THE ATHENS OF MISSOURI.

No Athenian ever gave more courtly attention to a guest than was accorded the visiting editors, last week, in Columbia, Mo. Inquiry revealed no school of manners, no special instruction in courtesy; it wasn't necessary; a finer group of young men and women never welcomed travelers from afar. But this was not all: Without, apparently, knowing they were doing anything extraordinary, the students of journalism in the Missouri University organized themselves into a reception committee for the week. Not satisfied with this, they let one word bring on another until finally, the day the editors and the teachers of journalism from seven states arrived, there they were, these future Villards

and Danas and Nelsons and Grastys, badged and smiling, waiting at the train to meet the crowd. And they knew the names, too, of those they met. Smart boys.

The week in Columbia was notable for many things. The first of these was the presence of more than 200 editors of Missouri. Kansas, Ohio, Michigan, Illinois, Missouri, Wisconsin, and Iowa were represented in the journalistic conference. The Commercial Club did its part in entertaining the visitors, and the fraternities and sororities did the same. It was a week of plain, helpful talks along lines in which every one was interested.

But the pleasantest remembrance is certain to be the fine treatment accorded everyone by Dean Williams' students. There wasn't one in the class who would have hesitated to accept all sorts of discomforts for a visitor. Indeed, this reception committee is the only one in the world that ever received anyone or ever did one of the things for which it was formed. Its members are entitled to the silver forks and the butter dish.

FARMING IN ARGENTINE.

The Argentine Republic is to have a modern school of agriculture. This announcement created a lot of surprise a few weeks ago when it came over the sea; and all because so many persons never see over their own board fences. Reports of revolutions with somewhat alarming frequency have caused many to suppose South America a land of outlaws. Argentine has seven million population and about 240 million acres with which to support them. It has special schools and universities at Cordova, Buenos Aires and La Plata. It has railroads, and street-car systems in its cities equal in service to those in this country in many instances. The finest and most costly newspaper plant in the world, built at an expense of four million dollars, is in Buenos Aires. How many readers of newspapers in this country know that?

Argentine is the only South American country which has given particular attention to the teaching of agriculture, and Argentine is to build the purposed school. In South America there are a number of countries whose populations, like that of Argentine are small in comparison with their territorial extent. The example that Argentine is setting doubtless will enable them to see the wisdom of taking similar steps to have their agricultural development worked out on an intelligent and systematic basis.

CARRYING THE MESSAGE.

Cooking, as it is taught in Kansas, is the next blessing to be showered upon the inhabitants of West Virginia. The other blessing has been forgotten. Down that way a clear-headed millionaire conceived the sensible idea of having Miss Frances Brown, of the Kansas agricultural college, conduct a movable school in his state for two months, exactly as it is done "Out There in Kansas." It chanced that Miss Brown was too busy to go east, so Superintendent Miller sent Miss Minnie Forceman. She is there now; the people are eating.

It may never be known just how much humanity in West Virginia owes to George Laughlin. He and his estimable wife have done much for the people in that state; their action in sending half way across the continent for a cooking instructor and paying the expenses of the entire undertaking is something worth while. Libraries and endowment funds are all very fine. An ocean trip, a fresh-air camp, or a week in the country are blessings. But for downright, common-sense, close-to-the-heart usefulness, hardly anything could surpass the idea of teaching the people to cook properly. It means good food, good stomachs, good work in the fields—and that means better homes and better men and women for America.

A white porcelain bath tub that has grown brown may be most perfectly cleaned by the use of spirits of turpentine applied with a flannel cloth.

A Spring Poem.

An apple blossom—just awake to life;
The sun, the wind, two enemies at strife;
The apple blossom's heart, the prize to be.
For him who gained the early victory.
Then wind, with eager accents, loud and strong,
Approached the blossom with his lover's song.
He tried to break the petals from their hold
So closely on the blossom's heart of gold.
But all in vain—the more he puffed and blew,
The blossom her pink petals closer drew.
Then sun came out so gently and so warm,
The blossom knew that he could bring no harm.
His brightest rays he sent, his warmest kiss,
Which thrilled each petal pink with rosy bliss.
And, blushing, her petals fell apart,
And to the sun revealed her golden heart.
But wind was not content to lose be.
And he began to laugh in mockery,
Ruthlessly he tore the petals from their stem—
Flung them upon a breeze, and captured them!
But there remained what wind had never won—
The blossom's heart, still golden in the sun!

SUNFLOWERS.

The way to break into society in Reno county is to belong to the Anti-Horse Thief Association.

Scientists declare Mars is too dry for anyone to live there. Kansas has not been heard from on that point, however.

The public may now accustom itself to two expressions in the papers: "No game; rain," and "The Blues lose again."

It is now proposed by the postmaster general that magazines be sent by freight. Is this to encourage light reading matter?

The Carnegie Commission recently awarded medals to ten heroes in Kansas. There wasn't a country editor on the list.

Now the Wichita *Beacon* says "Hyde Wants Out." Another paper, last week, said "Salina Wants In." Has this come to stay?

The *Star* seems surprised because a patient in the general hospital became hysterical. What else could be expected in that hospital?

Was not the United States Department of Agriculture a bit dilatory with its bulletin about peanuts? The municipal campaigns are over.

A contract has been awarded in Topeka to a man named Sardou—to write a great drama? Nay. He is to have the produce from 200 acres for canning.

Charles Sessions, secretary of state, it should be remembered, was once a newspaper writer. And now he's trying to boss a printer! Well of all things.

We notice that the Eggnogg Near Food Company's press agent and his prize ear of corn landed in several papers. Anyway the pieces had no "adv." sign on them.

The oratorical debaters decided it would be unwise for Kansas to have the initiative and referendum. Does this settle it finally, or is there still something to hope for in the future?

Henry Wallace, agricultural editor, member of the Country Life Commission, and president of the Conservation Congress, was once a preacher. He has never quite recovered, either.

Otto Krauthof, of Chicago, corporation lawyer, says *The Woman's World* is an expert chess player. He has a brother, Ed. Ed. is the best, catch-as-catch-can street-car orator in Kansas City.

One thing the public has gained by Dr. Hyde's release on bail: It will no longer have to read that "Mrs. Hyde climbed the iron steps leading to the cells on the third floor where her husband—."

The Wichita *Eagle* is forty years old. It doesn't look it. The *Eagle* is the freshest of the sprightly throng upon the exchange list. Long may it wave or soar or whatever it is an eagle should do.

Lone Hill Lonesomes, in *The Beloit Daily Call*: My, but wasn't Sunday evening something fierce! The wind Sunday, Monday, and Tuesday morning made Jas. Merrill's windmill look like it was turned wrong side out.

It is positively joyful, sometimes, to see a policeman get what he deserves, as in Chicago, a few days ago, when a young woman slapped one of the bulkiest members of the force. If a man had done that it would have taken six surgeons four days to cut the policeman's club out of the foolish one's head.

BUY THINGS THAT SUIT.

IN ARRANGING THE INTERIOR OF THE FARM HOME HAVE HARMONY.

Don't Get Something Just Because it Please You—Try to Remember if it Agrees With the Other Furnishings.

A farmhouse can be made more attractive than any other home. It does not have the dusty streets and smoky atmosphere of the city homes, but it does have beautiful trees and a lawn—things of which many city homes are deprived.

In papering the rooms use soft modulated colors. Do you wonder that some people are nervous when they have to sit in rooms with the walls covered with flashy paper that seems to be ready to jump at them? If the rooms are well lighted, use browns or greens; if they are not, use tans, light greens, or blues.

When the walls are papered, try to have the rug and finishings harmonize with them. Do not buy rugs with large designs; you soon tire of them.

A housewife who is an enemy of dust may oil her floors, and, by the use of a few rugs, have a very sanitary home, that requires little time in keeping it clean. If you do not wish to have all oiled floors, oil the dining-room floor, at least. You will find it is much more satisfactory than cleaning carpets or rugs.

For furniture, choose something simple; a sideboard, or chairs with large, raised designs, catch the dust, and it takes twice as long to clean them.

The beauty of a room may depend upon the pictures. Do not cling to the old idea that there should be only fruit pictures in the dining-room. Have restful, nature scenes, or an ink sketch, especially if the dining-room is also your living-room.

Always have in mind the purpose for which you are going to use an article, where you are going to put it, and will it harmonize with the room and the furnishings, before you buy it.

GLADIOLUS EASY TO GROW.

They are Semi-Hardy and Don't Require Much Care.

Few flowers are better adapted to garden culture than gladiolus. They are semi-hardy plants and can be grown with little care.

To prepare the seed-bed, work the ground deep and well. Crush all lumps and sow the bulbs in rows wide enough apart to be worked with a hoe. Put the bulbs down about two inches and cover with fine dirt. Cover the bed with cut grass or fine hay to keep out the sun. The plants will come up in two or three weeks. When they do so, take the hay away and keep the ground loose, moist, and free from weeds.

In selecting bulbs, choose those of medium size. See that they are solid and have a healthy look. As a rule, for general purposes the mixed variety is best for beds. These flowers will continue to bloom until frost.

They do best late in the season if the weather is cool. They require plenty of moisture and will not bloom well unless given water. Plant any time after the danger of frost is past. Store the bulbs in a dark, cool, dry place.

GUARD YOUR PLANTS.

It May be That They are Infested by Insects.

After the winter, house plants frequently look pale and lifeless. This condition is due to plant-lice, in many cases. These small insects may be overlooked by the busy housewife.

If the plants are infested, place them where they can be sprayed. Fill a sprinkler with boiling water and pour over the plants. Do not hold the sprinkler closer than two feet, for if you do the water will not have cooled enough. If the leaves are large, set the plants on their sides in order that the hot water may reach on the under side of the leaves.

Another method of killing these pests is to soak tobacco leaves or tobacco dust in hot water and apply the

solution. The tobacco must not be boiled, but just allowed to steep in the hot water. The soapy wash used at the Kansas State Agricultural College has been found to work well on outdoor plants.

Take one pound of Ivory soap and shave into three gallons of water. Heat until the soap is dissolved. Use this as a spray. Tobacco dust is often buried at the roots of plants. This kills insects damaging the roots and, besides, is an excellent fertilizer.

QUEEN OF THE MAY.

Miss Clara Morris Will Be Crowned at the Festival.

For I'm to be Queen of the May, Mother.
I'm to be Queen of the May.

The queen of the May to be crowned at the May Festival is to be Miss Clara Morris, who has been chosen by the senior girls.

Many of the colleges of this country have a May Festival annually, and there is every reason to believe that the festival at the Kansas State Agricultural College this year, May 11, will be successful. All the exercises will be on the college campus, east of the Auditorium. The crowning of the May Queen will be very ceremonious, and a grand march will be a part of the coronation scene. A farce, and a good one, will be another feature. Six "stunts," chosen from a number sent in, will provide a variety of

GIVE THE PLANTS FOOD.

MUCH DEPENDS UPON THE CARE OF THE FRUIT GARDEN.

Be Sure that There is Sufficient Moisture
—It Can be Supplied by Frequent and Thorough Tillage by Using a Cultivator.

The value of a small fruit garden depends upon its care the first season. The best results are obtained from a small fruit garden by supplying the young plants with plenty of food and moisture from the time of setting the plants out until the finished product goes on the market. Frequent and thorough tillage by the use of a cultivator and a hoe makes the plant-food already in the soil more available for plant use. It tends also to prevent evaporation of the soil moisture by the formation of an earth mulch. Stir the soil after every heavy rain, as a crust is formed and the evaporation of the soil moisture takes place rapidly.

On small areas, the use of an iron rake in stirring the surface soil forms a soil mulch and keeps down weeds. Do not let weeds grow in the garden the first season and the weed problem will be solved for the following seasons.

Do not neglect to supply the strawberry plants with plenty of water. This is done best by good tillage, and if sufficient water is not supplied by

short to try to make a living by raising late cabbages," he says.

Fredonia is in the gas district. Mr. Stephenson has placed a gas jet in the middle of the field. Beneath this jet are pans coated with kerosene and filled with water. The gas jet is lighted every night and burns all night. The moths fly to the jet and scorch their wings, falling into the water and drowning. And this is where Mr. Stephenson makes some money, indirectly, from his cabbage. He feeds a large flock of thoroughbred white leghorns on the moths killed by the jet and water. Every evening, just before going to roost, the chickens go to the pans and have a feast. The first thing they do in the morning is to run to the pans for their breakfast of moths.

CITY AND COUNTRY BOYS.

In Measuring 1723 at Cornell the Differences Were Unimportant.

In Cornell University, recently, 1723 young men were measured to find out how country- and city-bred youths compare. Here is the score:

Country boys taller by half an inch, heavier by three and a half pounds, with slightly greater chest expansion. City boys have better powers of mental concentration.

At the piano, they found that the country boy "plays more poetry into his music, because he is thinking of the woods, the birds, the streams, and

HOW TO PRESERVE PEARS

SOME GOOD WAYS THAT WILL HELP DURING CANNING SEASON.

The Method to Use if You Would Have the Fruit Entirely Digestible—The Pickled Variety is Excellent for Company.

There are several ways of preserving pears, but canning is the easiest and most economical way. The fruit is more digestible put up in this way. The pears should be washed, pared, and quartered and, if a quantity is prepared at one time, dropped into cold water made slightly acid with lemon juice. This will keep them white. If possible, a silver knife should be used for paring, and all vessels with which the fruit comes in contact should be of some material which will not corrode.

If the fruit is to be used for sauce, it is better to put it up with sugar. The sugar and water should be brought to a boil so that the sugar is dissolved thoroughly and the syrup put where it will keep hot, but not boil. One quart of sugar and three quarts of water to eight quarts of pears is a good recipe, but the sugar must be measured to suit the taste.

CLEAR WATER FIRST.

If the pears are very hard, they should be boiled in clear water first. If softer ones are used, they are put into the preserving kettle immediately and covered with syrup. They must cook until they may be pierced easily with a silver fork. Then fill the jars, which have first been sterilized, running a silver knife down the side of the jar to see that no spaces filled with air are left. After sealing the jars, put them in a protected place.

If preferred, the fruit may be put into the jars, the syrup poured over it, and the jars placed on a rack in a wash boiler with water enough to come well up on the jars. In this way, the fruit is cooked by steam. Or the jars may be set in the oven on an asbestos mat and the fruit cooked by oven heat.

If you grow tired of canned pears, put up a few jars of quinces and pears. Use one third quinces and more sugar than for pears alone. These are very good if boiled down a little as preserves are. The quinces must be cooked separately until tender.

HERE'S ANOTHER WAY.

Another variation from the plain, canned pears is to put them up in grape juice. Boil down the grape juice one third and then cook the pears in this juice until tender. No sugar is needed.

For special occasions, it is well to have a few jars of pickled pears. Wipe the pears with a flannel cloth or pare them; stick two or three cloves in each pear, and lay them in a stone jar. Take one half pound of sugar to one quart of vinegar, with spice to taste, let come to a boil, skim and pour over the pears. Let stand one day, then pour off the vinegar, boil again and pour over the pears. Repeat this process the third day and the pears are ready for use.

BREAKFAST

Cream of Wheat with Dates
Scrambled Eggs
Chocolate

DINNER

Broiled Sirloin Steak French Fried Potatoes
Stewed Tomatoes Coffee
Orange, Cress, and Black Walnut Salad
Salines

SUPPER

Welsh Rarebit Green Onions
Russian Tea Nut Sandwiches

As to Journalism.

It is manifestly absurd to assume that a man will be ruined for journalism if he is taught journalism as a profession, and it is just as ridiculous to assert that the student will not be greatly benefited by such training, assuming, of course, that the school which he attends is a good one. In journalism, as in anything else, some aptitude for the work is required. Some men cannot write and never will know how to write. Others have no power of observation or are woefully deficient in the ability to condense or to separate the wheat from the chaff. One great trouble with journalism to-day is that there are not enough college-bred men in it. The great mass of workers can be trained for their work, but even training cannot make great journalists.—Charleston News and Courier.

When making pieces of hand embroidery try adding a mark of your own. Small cross-stitch designs are pretty and not too noticeable.

When boiling rice or beans, two things which will boil over, put in a lump of butter size of a walnut and this will stop the trouble at once.



May Pole Dance on the College Campus.

entertainment. The Y. W. C. A. girls will sell candy and ice-cream and, of course, peanuts.

A number of students go to the summer conferences of the Y. W. C. A. at Cascade, Colo., every year, or the Y. M. C. A. meeting at Lake Geneva, north of Chicago. Many students do not have the money to attend these conferences. For this reason the May Festival is given. The proceeds are lent to students who desire to attend these meetings. The loan is to be paid not more than two years after graduation. Then a fund will be becoming in every year, once the practice is started. An admission fee of ten cents to the May Festival will be charged. School will be dismissed at noon May 11.

WATCH THE MELONS.

The Spray Which is Used Successfully at the Agricultural College.

The Kansas farmer does not make a business of growing melons, and as a rule after planting pays little or no attention to those he does plant. The melon lice find the patch and destroy it while the farmer is working elsewhere.

After planting, the vines should be looked over about every two weeks, to see if the lice are at work. If the vines are found to be infected, spray the plants well, taking care to wet the under side of the leaves. Here is the way the spray is made: Shave one half pound of common soap into one gallon soft water, boil until soap is dissolved. While boiling, take from the fire and add two gallons of kerosene. Stir until a creamy emulsion results. Next add five ounces of carbolic acid, and when ready to use add one gallon of the emulsion to nine gallons of water. Spray this mixture generously over the plants and the lice will all be killed.

This method is used by the Kansas State Agricultural College and is found very successful.

GAS KILLS THE MOTHS.

The Novel Method Used at Fredonia to Protect the Cabbages.

Some persons use dust to kill cabbage moths; others resort to paris green, but J. F. Stephenson, a successful grower of early cabbage, has found that natural gas is the best thing and that it does the work.

One and one fourth acres of early cabbage gave returns of \$527, besides a crop of tomatoes. This is the record of Mr. Stephenson, who lives at Fredonia, Kan. Mr. Stephenson raises early cabbage, only. "Life is too

DO YOU LIKE POP-CORN?

ITS VALUE DEFENDS ENTIRELY UPON THE POPPING QUALITIES.

The Best Time for Planting is From May 25 to June 5—The Average Yield an Acre is Sixty Bushels.

The value of pop-corn depends upon its popping qualities.

Be very careful to buy extra well-bred seed, or, if you plant and develop your own choice seed-corn, guard against neighboring field corn pollen and other germinating processes making your pop-corn a hybrid.

Pop-corn will do very well in any well-drained, fertile soil, but it is useless to plant it in low peat or mucky ground. A four-to-one mixture of phosphate and sulphate of potash, drilled into the ground just before planting, is a good means of assuring well-sized ears, and also holds stalks to a uniform growth. The best time for planting is from May 25 to June 5, when frosts are over and the soil is warm enough to germinate the young seed.

The land should be harrowed and pulverized thoroughly before planting. The corn-planter, or ordinary grain drill, is the best method of planting. Pop-corn does well when planted in rows three and one half feet apart, dropping the kernels every six or eight inches. Good results are obtained by rolling the soil to pack firmly the seed after it is planted. It should be cultivated every ten days until too high for the cultivators, and then hand hoed twice. It is important to help the pop-corn as much as possible while summer is at hand, for it must be ripened before a frost comes. If "nipped" by frost its popping abilities are checked. It should be harvested just as you gather field corn, taking precaution to have mice-proof cribs and adequate shelter from rains and freezing.

The average yield for every acre is sixty bushels of ears, or thirty bushels shelled. Where it is convenient to a market, this corn sells for \$2 a bushel, which gives an income of \$60 an acre. The cobs will sell for \$6 to \$8.

BULLDOZE, NOT BULLDOZE.

Why the Former is the Proper Form of this Word.

The Hayes-Tilden campaign of 1876 was hotly contested. Heroic measures were resorted to in order to get votes. In the South, harsh methods were used, especially with the negroes, to make Tilden votes. A society called "The Stop" was organized. Its methods were summary. If a negro refused to join, and vote for Tilden, he was taken to the woods and whipped nearly to death. This was giving him a "bulldoze."

This expression had long been used in certain localities in the South to mean a dose of medicine fit for a bull. As a result of its use in this campaign it became current all over the country. "Bulldosed parish" became a synonym for a district in which violent methods had been used to get votes. The word is now spelled and pronounced *bulldoze*. Just how or why the form and pronunciation of the word have changed is not clear.

L. H. B.

AT THE END OF THE RAINBOW.

That's the Name of the Senior Class Play for Commencement.

The play to be given by the senior class Tuesday night of Commencement week will be "At the End of the Rainbow." This is a college story and should win approval. The cast has been selected and rehearsals have started. E. P. Johnston, instructor in public speaking, is coaching the players.

INSPECT A JERSEY FARM.

One of Professor Reed's Classes Visited the Linscott Place.

The class in advanced dairy stock judging of the Kansas State Agricultural College, accompanied by O. E. Reed, professor in charge, visited the Jersey farm of R. J. Linscott near Holton, Kan., last Saturday.

Through the influence of Mr. Linscott the Rock Island railroad officials granted permission to stop the trains within a mile of the Linscott farm to accommodate the visitors.

The advanced class in dairy stock judging consists of about twenty-five students who are making a detailed study of the different dairy breeds. For this purpose the Linscott farm was admirably suited. Mr. Linscott has in his Jersey herd some of the best individuals of the breed. The blood lines all trace back to famous animals. The herd was established in 1878 by Mr. Linscott's father.

The day was taken up in judging several classes of mature cows, a class of two-year-olds in milk, a class of yearlings, and a class of mature bulls. At noon Mr. and Mrs. Linscott entertained the visitors at dinner.

TO FACE THE PUBLIC.

Country Literary Societies Will Train Young Persons to Speak.

The first real experience in public speaking comes to a country boy in the literary society of his own township.

Once it happened in Kansas that a new family moved into a certain neighborhood. Not being acquainted, time dragged heavily and the members of the family decided to form an organization. The school board members were interviewed, and while not enthusiastic offered the schoolhouse to be used twice a month. Invitations were telephoned to those whom the family believed likely to join. At the appointed time many were there. At the next meeting a constitution was adopted, and officers were elected. Money for lights and other expenses was obtained by a ten-cent assessment whenever it became necessary.

Literary programs, debates, spelling contests and singing matches made the meetings very popular. About this time the district adjoining that neighborhood started a similar society. Many hotly contested encounters have trained the young persons of those two Kansas districts in speaking, until they are much sought as speakers in the conventions and meetings of their county.

IF YOU HAVE DREAMS—

Justice West Delivered a Fine Moral Lesson in His Address.

"Keep your feet on the ground, but your eyes on the sky. If you have dreams and see visions, respond to them." This was the substance of one of the most interesting chapel talks of year. It was given yesterday morning by J. S. West, associate justice of the supreme court. As an example of the influence of the dreamer and visionary, he gave a vivid word-picture of the struggles, triumph, and death of Joan of Arc, the maid of Orleans, who heard the voices, drove out the English, placed Charles VII upon the throne of France, and changed the face of Europe in one year. He cited other examples of the dreamer—Socrates, Mohammed, and Swedenborg.

Justice West received the closest attention. His address upon a subject usually made dull and lifeless, was really a story of a wonderful girl told in a manner so simple and interesting that everyone's attention was held throughout. He called the French girl "Jennie."

Keep a Scrap-Book.

Every farmer should be interested in keeping a scrap-book. It is not hard to do. Have the book indexed with places for poultry, stock, and general farm subjects. When you find something that you think valuable, cut it out and paste it in its proper place. There is no need of having magazines and newspapers accumulate, if you don't want them to, if you just cut out the articles you want and file them in your scrap-book. When the farmer is too busy with his work, his wife or daughters can see that the interesting things are pasted. Then, too, if the farmer or his children write on agricultural subjects or are correspondents for papers, the scrap-book will be a convenient place to keep these articles.

HAS NO FREAK LAWS.

CHIEF JUSTICE JOHNSTON DEFENDS KANSAS IN SPEECH HERE.

He Paid a High Tribute to the Position the Kansas State Agricultural College Holds—Other Noted Men Will Speak Here.

Kansas is progressively conservative in lawmaking; the increase in the number of laws is the sign of a normal and healthy growth; a smaller legislative body, a longer session—100 days at least—and adequate compensation for legislators would correct the few evils of legislation in Kansas. These are a few of the points made by W. A. Johnston, chief justice of the supreme court of Kansas, in his chapel talk at the Kansas State Agricultural College April 21.

The subject of his address was "Laws and Legislation." He warmly defended the Kansas legislature, citing the many good laws on the Kansas statute books, and the singularly clean record of Kansas in regard to freak laws. He traced the development of the common law from the early disputes among Saxon ancestors, and showed how this common law, and the statute laws of 50 years ago, were entirely inadequate to meet the problems of to-day's civilization. Railways and other corporations; oil and gas; machinery and manufacturing—these have made more laws a necessity.

In speaking of Kansas, Judge Johnston called attention to the fact that Kansas is a young man's state. The framers of the Wyandotte constitution were young men, half of them not out of their twenties. He paid a high tribute to the unique position the college holds in the educational system of Kansas, and to the good records of its graduates. He also put himself on record as favoring woman suffrage.

Judge Johnston's address was the first of a series of talks to be given by the members of the Kansas supreme bench. Associate Justice J. S. West will speak April 28; Associate Justice H. F. Mason, May 19; Associate Justice R. A. Burch early in June.

SAVE YOURSELF WORK.

The Kitchen Labor Can be Lightened in Summer.

The high-stool chair, or chairs with backs, will keep women from being on their feet so much, which is so tiresome in the summer time.

Did you ever try cold evening dinners in the summer time? If you cook enough for the evening meal when the noon meal is prepared it will lessen your work materially. Many persons do not object to a cold evening meal if you have hot tea or coffee, or ice tea or lemonade can be served instead of the warm drink.

One means of saving a great deal of time and work is by using a fireless cooker. If you cannot afford to buy one, make it. You will often see directions in magazines.

COLLEGE GIRLS ELECTED.

They Will Teach Domestic Science and Art in State Schools.

Domestic science girls have been elected to teach that study and also domestic art in Kansas high schools. The names of the girls and the towns are: Florence Snell, Cottonwood Falls; Blanche Ingersoll, Minneapolis; Winnie Cowan, Holton; Florine Fate, Tonganoxie; Georgia Randel, Freddonia; Mary Parsons, Wakeeney; Edna Pugh, Wathena; Christine Heim, Lincoln.

These girls will have an opportunity to equip their own laboratories, since the work will be introduced this fall for the first time.

When Paul Takes a Bath.

Paul Humphrey arrived Friday morning from K. U. to be in time for his Easter swim. For the past nine years Paul has not missed an Easter swim in the limpid waters of Pumpkin creek. Many come home for a drink of Pumpkin creek water, but Paul comes home for his annual bath.—*Mound Valley Journal*.

Contests for the Girls!

Why not have a part in the activities this year?

Can you make butter?
Can you bake?
Can you sew?
Can you mend?
Can you can?

This is the time to prove your ability.
You might be a winner—who knows?

How Does Your Garden Grow?

Perhaps you never have tried to grow anything. Why not get into the annual contest for 1911? Your institute officers or your Home Economics Club or the County Superintendent can tell you all about the plan.

Fifty Loaves in Four Months!

Could you bake that much bread? Could you bake it better than any other girl in Kansas?

No first-prize winner in previous contests can compete in the same class this year.

Three Classes to be Entered in the Contests

The College recommends that committees have Class B for girls 10 to 14 years old; Class A, girls 15 to 20, and a "Special" class for girls 15 to 20 who have attended the State institute or a cooking or sewing school for one or two weeks. If you will be 15 by July 1, you may enter in Class A. THE COLLEGE INVITES YOUR CO-OPERATION IN THE WORK.

For information write the extension department or see your institute officers.

The Kansas State Agricultural College, MANHATTAN, KANSAS

THE SPELLING BEE REVIVED.

A Cup Offered by the English Department to the Champion Spellers.

The spelling of college students is confessedly bad. It is a standing reproach to both students and graduates. Conditions at the Kansas State Agricultural College are no worse than elsewhere, but they are bad enough. Complaints have come from all sides, not merely from teachers of English, who are naturally supposed to devote a good deal of attention to that branch of knowledge, but from instructors in other departments as well, who have grown tired of reading *gass, tode, labratory*, and so on *ad nauseam*.

Professor Beall, of the department of English, has devoted a good deal of attention to the problem of spelling and has collected a considerable amount of data on the subject. He has found that fifty per cent of misspelling is due to carelessness. This is attested by the fact that more than half of the words misspelled by students can be and are spelled correctly by the same students when their attention is called to the words; also by the fact that where a misspelled word is used twice or oftener in the same exercise by a student the chances are more than even that he will spell it correctly at least once.

Other causes of poor spelling are imperfect understanding of the nature of words (due to slovenly pronunciation), failure to distinguish between homonyms (words having the same sound, but differing in meaning), and ignorance. It should be said that ignorance plays a relatively small part in the misspelling of words.

Bearing these facts in mind, Professor Beall reasoned that all that is needed to improve students' spelling to a marked degree is to call their at-

tention to the real reasons for their poor spelling and to arouse an interest in better spelling. Accordingly, a series of old-fashioned spelling bees has been arranged for by the college literary societies. The faculty of the department of English has offered a silver cup to the society proving itself the champion. To make the contests as practical as possible a list of eight hundred of the words most often misspelled by the students in their college work has been prepared and put into the hands of each member of each society. This list is being studied and, while thirty-nine students were "spelled down" with fewer than three hundred of them in the first contest, it is safe to wager that the state text-book in spelling will have to be resorted to in order to spell down all who take part in future contests.

Incidentally, two or three instructors have remarked that already they have noticed a decided improvement in the spelling of their classes. An interest in better spelling is being evinced by many not members of any literary society.

The Returns from Food.

Sir John B. Laws found that from one hundred pounds of dry food he could produce nine pounds of live steer, eleven pounds of live sheep, and 23.8 pounds of live hog, or 264 percent more pig than steer from a given amount of food. On a feeding test by Prof. J. W. Sanborne, it was shown that an average of four pounds of food made one pound of growth, or twenty-five pounds were produced from one hundred pounds of food in its air-dry state; and from one hundred pounds of dry food on the basis of Sir John B. Laws' calculation twenty-eight pounds were produced, or over four pounds more than given by him.

THE KANSAS INDUSTRIALIST

Volume 37

Kansas State Agricultural College, Manhattan, Saturday, May 6, 1911

Number 31

52 LEARN HOW TO FARM.

THAT MANY GIRLS ARE STUDYING AGRICULTURE THIS TERM.

They Are Complying with the New Law
—L. A. Fitz Tells Them All About Silos and Other Things Equally Important.

Fifty-two young women students at the Kansas State Agricultural College learned the advantages of listing corn last Thursday. They found out why listing is the best way of planting corn in the dry end of the corn belt, and that discing ahead of the lister aids materially in conserving moisture. A discussion as to whether listing was a "lazy man's method," as many farmers—not all of them from the East, either—contend, was decided in the negative, with the reservation that a large number of farmers go at it in a lazy way that brings poor results.

These girls are studying agriculture because the legislature recently passed a bill requiring Kansas teachers to pass an examination in agriculture to be able to teach in Kansas schools. This class was organized for the benefit of the senior girls who expect to teach next year, but the work has proved so interesting that several others have joined the class, which meets four hours a week, with a two-hour "laboratory" period for Monday mornings. This "lab" time is spent visiting the college farm, the silos, the dairy herd and barn, the plowed plots, the soil physics laboratory, and other departments.

SOIL FERTILITY.

L. A. Fitz, milling expert of the Kansas State Agricultural College, who is instructing the class, is much pleased with the way the girls have taken hold of the work.

"One of the hardest things we find in trying to increase the crop yield," he said to the class recently, "is to make the farmer realize the importance of doing certain things that are essential if this country is to continue to support itself agriculturally—to conserve the moisture, return some of the elements of fertility to the soil, to do away with the enormous waste that is characteristic of too many farms. There is no better way of learning this than to teach it to the school children. That is what these girls are getting ready to do."

Special attention is given to methods of teaching agriculture. For instance, the value of illustration in class-room work. To show the effect of deep-planting corn, plant some kernels at different depths in a Mason jar, and observe their growth—a little point, but one that may prove valuable to others than school-teachers.

STUDYING SILOS, TOO.

Silos and silage were discussed at the same recitation period. Women seem to find it much easier to understand this subject when it is explained to them that it is, in principle, simply canning corn fodder on a large scale. With this start, it was easy to become interested in the fact that corn is ready for the silo just when the kernels begin to glaze over, and that the diameter of the silo is determined by the size of the herd to be fed. Why? Because after the silo is opened and feeding begins the top layer of silage spoils rapidly, hence there must not be more in this top layer than the herd can eat in one day.

After these and several other points had been well covered, one girl wanted to know, if one fed from the top of a silo, how would one get the bottom layer from a twenty-foot silo? This question disclosed the fact that silos are built with a line of doors from top to bottom.

These are only a few of the things disposed of at one session of the class, but they give some idea of what these fifty-two girls—and two boys—are learning.

THE LEAD OUTPUT GROWS.

In 1910 an Increase Was Noted Over All Previous Years.

The production of refined lead in the United States in 1910, as shown by an advance statement issued by the United States Geological Survey, was 470,380 tons, an increase over the figures for 1909 of 22,268 tons.

The following are the states which smelted or refined lead in excess of 10,000 tons:

	1909.	1910.
Short tons.	Short tons.	Short tons.
Missouri.....	142,650	161,659
Idaho.....	97,183	99,924
Utah.....	64,534	57,081
Colorado.....	29,328	35,685

CANKER-WORMS BUSY.

Professor Dickens Hears from Sedgwick County and Gives Advice.

Canker-worms have set up house-keeping in some Kansas orchards. Apples that escaped the frost now have this enemy to contend with. Sedgwick and neighboring counties have reported to Albert Dickens, head of the horticultural department of the Kansas State Agricultural College, that the apples are suffering. Professor Dickens says:

"Arsenical poisoning is required, and, as the canker-worm is less susceptible than most leaf-eating insects, a stronger mixture should be used. I believe not less than three pounds of high-grade arsenate of lead to fifty gallons of water should be employed. The spraying should be done so thoroughly that every leaf and bud is well coated with the poison. A standard arsenate of lead should be used. If it does not contain from fifteen to twenty-five per cent, a larger amount will be required.

"The neglect to spray last year, because the fruit crop was destroyed by frost, has given the canker-worm a chance to increase very rapidly. It is a common thing, in localities where spraying is not practiced, to have trees defoliated and killed by the canker-worms. The females of this worm appear very early in the spring, frequently during the warm days of February. The eggs are laid upon the buds and the insects hatch and begin to feed upon the buds as soon as the clusters open. They are voracious feeders on buds, leaves, and flowers. Frequently a second brood appears later in the season, causing serious injury and frequently the death of the trees.

"The entomologists have revised the history of this insect considerably during the last few years. They find that the females appear very early in the spring; in fact, the warm days of February bring out large numbers of them. The female is wingless and crawls up the tree to deposit the eggs.

"If bands coated with some sticky substance are placed about the trees, many of the insects will be thus trapped and destroyed.

"Orchards that have been well sprayed for codling are not showing very much injury from canker-worms. The spray that is being used now should be applied with a double object of killing the canker-worms and the codling-moths. It has been remarked often by fruit growers that the arsenic poison would not kill canker-worms. The entomologists explain this by the fact that after the worms become grown they do not eat nearly so much as when small. At any rate, trees that have been coated with three pounds of arsenate of lead to fifty gallons of water have never

been defoliated."

Newspapers as Educators.

"Newspapers are the greatest educational factor we have," said a speaker at the annual meeting of the Entomological Society in the State University at Berkeley, Cal., last week.

BIG PAY FOR GOOD VETS.

CHILE OFFERED DR. SCHOENLEBER \$25,000 A YEAR—\$9000 AMERICAN.

The Southern Republic Needs This Kind of Expert Help—A Three-Year Contract and Fare Both Ways—Montevideo Also Eager.

Twenty-five thousand dollars a year for an expert veterinarian!

A representative of the Chilean government entered the office of Dr. F. S. Schoenleber a few days ago and offered him that much, annually, if he would give his services to Chile.

That country would pay such a salary to the man who would go to Santiago, Chile, and organize a bureau of animal industry for Chile similar to the United States bureau. A contract for three years was offered at \$25,000 a year and transportation both ways. In United States money that would be about \$9,000.

MUST SPEAK SPANISH.

An expert veterinarian, experienced with conditions west of the Mississippi river, was desired, the representative said. That part of the United States is similar to Chile in many ways. He would have to learn Spanish, also. A man speaking German or French, the representative said, would do.

Doctor Schoenleber refused the offer. He preferred to stay in Kansas, he said. The representative was unable to find a man in the western United States for the position even at so tempting a salary. He is now making the same offer to veterinary experts in France, Doctor Schoenleber says.

Following closely on this offer came another from Montevideo, Uruguay. Three graduates of veterinary schools were wanted, the letter read, to teach veterinary science in a school at Montevideo. "Three hundred dollars in gold" a month was the salary named, and four-year contracts were asked for.

WHERE GRADUATES GO.

"Experienced men were asked for, so I cannot recommend seniors for these positions," said Doctor Schoenleber in telling of the offers. "And I am at a loss to know just who of our graduates to recommend, for practically all of them are holding good positions now. There is a young man out in a western Kansas town whom I would gladly recommend, but I know he wouldn't care for the job. He has been out of college just three years and his yearly practice amounts to more than \$3000."

Then he told of the graduates that have been taken out of Kansas; many by the United States Bureau of Animal Industry, and several by the H. K. Mulford Company and the Parke-Davis Biological supply houses. One graduate is teaching in the San Francisco Veterinary College.

Looking for a Teacher.

George Rose, junior at the Kansas State Agricultural College in 1881, for many years superintendent of schools in Rosedale, visited college one day last week. Mr. Rose was looking for an assistant in science and manual training for the high school of Rosedale.

Medals for Debaters.

The Hamilton Literary Society has given gold medals to P. C. Vilander, Lee H. Gould, and E. A. Vaughn for excellence in oratory and debate.

Captain Boice III.

Captain Charles H. Boice, commandant, has been ill with a severe attack of tonsilitis.

When sewing on the machine, if the thread breaks easily, soak spool and all in water for about two minutes. This rule applies to any quality of thread.

PURPOSE OF TARRING CORN.

It Is Very Useful Against Some Troublesome Pests.

Tarring corn is done to protect the seed from crows, ground squirrels, field mice, and moles. In some places, these pests do so much damage to the seed that the prospect for a crop is cut off before the seeds have a chance to germinate.

The seed is put in a box or vessel of some convenient size and a thin coating of tar spread over it. Planting is done in the same manner as if no tar was on the seeds. The odor of the tar will keep injurious pests away even after the seed has sprouted.

READY FOR THE FESTIVAL.

May 11 the Big Day for the Campus Stunts—Don't Forget.

The May Festival is going to be an entertainment worth while. The committees in charge are pushing the work and will make the affair a success. May 11 is the date.

Miss Clara Morris, the May Queen, will be crowned by Mrs. Mary P. Van Zile, dean of women. A large platform will be erected east of the Auditorium and a throne placed upon it. The line of march, in which will be fifty boys and fifty girls, will start from the Women's Gymnasium and proceed to the campus east of the Auditorium, where the May Queen will be crowned. Miss Morris is to have her own attendants. She has chosen several of these. Ralph Heywood and George Kirkpatrick will be marshals, or stage managers, as you choose.

A ten-minute love comedy, with six actors and a kiss-and-be-happy ending, will set things going right. The spectators will have a natural parquet, meaning the slope just east of the Auditorium. Then the Phi Kappa Phi sorority, the Eurodelphians, the Ionians, and the Websters will offer original stunts for the approval of the crowd.

The May-pole dance is to be one of the most important features of the entertainment. This dance is given by members of the girls' gymnasium classes. The faculty has not, so far, volunteered to give any original stunts.

The Lambda Lambda Theta, the Phi Kappa Phi, and the Eta Beta Phi sororities will have separate candy booths. And of course every one is expected to buy. The Aztec and Kappa Delta Phi will have charge of booths where they will serve ice-cream in true circus style. It will be a big day and a red-letter event in the college calendar.

Many out-of-town visitors are expected to be present. This will be a good chance to see the college at its best and to have a good time also. The admission fee is ten cents. Tickets are on sale at Flemings, the Palace, "Coöp" Book Store, and Willard's. Several other places are to be added to this list.

TO BUY A REGIMENTAL FLAG.

The Army Play Took in \$292, but the Expenses Were \$165.

Part of the proceeds from the military play will be used to buy a regimental flag. Here is the financial statement of the play: Total receipts, \$292; expenses, \$165. Seventy-five dollars will be spent for a flag. The remainder of the receipts will be used to help furnish the military quarters in the Nichols Gymnasium.

Will He Put It Up?

The freshman class in veterinary medicine Saturday presented an umbrella with a silver handle to Dr. L. W. Goss, assistant professor in that department. Doctor Goss is to be absent for a year's study in the German universities.

TO SING THE "ELIJAH."

ARRANGEMENTS ARE BEING MADE FOR THE CHORAL UNION CONCERT.

The Soloists Are Mable Sharpe-Herdien, Soprano, John B. Miller, Tenor, Mrs. F. H. Slack, Contralto, and Olof Valley, Bass—Many to Take Part.

Arrangements are now being made for the annual concert of the Choral Union of the Kansas State Agricultural College Wednesday night, June 14, of Commencement week.

Mendelssohn's "Elijah" will be sung this year. The solo parts will be taken by persons who are fitted especially for that sort of work. Mrs. Mabel Sharpe-Herdien, soprano, has appeared with many of the best musical clubs in the country in the last season. Among these are the Apollo musical club and the Mendelssohn club of Chicago; the Buffalo Saengerbund, and others. The Toronto, Canada, World and the Chicago Tribune praise Mrs. Sharpe-Herdien's singing very highly.

John B. Miller, tenor, is said to be the most in demand of any oratorio singer of the day. Mr. Miller sang the Messiah in 1900 with the Apollo club, of Chicago. He also is spoken of very flatteringly by the press.

Mrs. F. H. Slack, of Manhattan, will sing the contralto parts. Her voice is adapted to this work and to oratorio singing.

Olof Valley, professor of music at the agricultural college, not only will direct the chorus, but he will sing also the bass roles. Professor Valley's voice is never better than in the basso profundo songs. He has won rare praise for his singing in musical events of this kind.

The college orchestra, under the direction of R. H. Brown, assistant professor of music, will play the accompaniment, with Miss Mell Hutto at the piano.

In the afternoon a concert will be given by the visiting soloists and by members of the music department, the orchestra, and the glee club. The Choral Union now has more than one hundred members.

The Classes "Mixed."

The first real old-fashioned class "mix" took place Tuesday morning after chapel. No definite class lines were drawn, so every one struggled with the one next to him. The whole affair started as a result of a senior banner appearing upon the telephone wires between the library and Anderson Hall. The under classmen, assisted by the juniors, shook this off and then began the scramble to save it. The colors were soon torn to shreds and seized for souvenirs. Several personal encounters followed, but no serious damage was done.

And the Freshmen, Too.

The freshmen held a mass meeting Thursday morning in the old chapel. The other classes desired to meet with them, and as a result a free-for-all "scrap" ensued. The freshmen outnumbered the others, thus one of the members of the other classes could be seen coming out of the room assisted by a couple of freshmen.

Custodian Lewis threatened to take the intruders to the President, if they did not stay out of the room. As everyone knew the President was out of town, the threat frightened few. However, the custodian stood at the door and kept the students away.

After much yelling and talking the freshmen carried out their plans, and the meeting was held in spite of the attempts of the other classes to break it up.

Tar may be removed from any kind of cloth if you saturate the spot with turpentine and rub it well.

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PROF. C. J. DILLON Managing Editor
DR. J. D. WALTERS Local Editor

Except for contributions from officers of the college or members of the faculty, the articles in THE KANSAS INDUSTRIALIST are written by students in the department of industrial journalism, under the direction of Prof. Charles Dillon.

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SATURDAY, MAY 6, 1911

INDUSTRIAL JOURNALISM.

Knowledge is power only as it comes into possession of those who can use it; it gives pleasure in direct proportion to the extent of its diffusion. A discovery is of but little value as long as the discoverer is the only one who knows of its existence, and the printed page is by far the most effective means of extending knowledge concerning it. Magazines and newspapers never sleep or take vacations, and their power to elevate mankind is incalculable. But printed knowledge becomes effective only as it is read, and to be read in this day it must stand out from the great mass of other matter, and gain the attention and hold the interest of the reader. To do this its points must be sharp and easily seen, and the style must be attractive. On the other hand, if the presentation is not essentially true, the more attractive it is the worse it is; the greater the harm that follows its reading.

The purpose of the course in industrial journalism in the Kansas State Agricultural College is to equip men and women with fundamental knowledge, that they may recognize that which is new, and may distinguish truth from falsity; to enable them to set a proper valuation upon facts as related to the industrial world, that the emphasis of their writings may be properly placed; and to write clear, accurate, forceful, entertaining English.

A writer might advantageously know everything; this being impossible, and the field being so broad, the course as offered by the college includes, in the first place, lines of studies that are basic in all industrial life and its presentation—English, history, economics, physics, chemistry, biological sciences, etc., and two years in the theory and practice of effective writing and publication.

In the second place, it gives a choice from four groups of subjects centered upon agriculture, mechanic arts, home economics, and general science.

Third, in each of these options several free electives are left, which may be filled with any subject taught in the college that bears upon the special work contemplated. Thus, one choosing the agriculture option may elect subjects that will give him additional special knowledge concerning farm crops, live stock, horticulture and forestry, or farm mechanics.

The college thus affords preparation for work in a wide and inviting field.

The unprecedented industrial achievements of the last century and the present have been made by the application of discoveries in physical and biological science. Much of discovery, and much of application, is yet to come. He who can write truthfully and entertainingly of that which is, and of that which comes, will find ample reward.

J. T. W.

EFFICIENCY.

The country heard much, in Grover Cleveland's time, of "Innocuous desuetude," and thousands wondered what it meant. Then came Theodore I with his "Strenuous" life, and now we are in a maelstrom of "Efficiency."

Everywhere a man goes this word is flung at him. In the classic shades of Columbia, a few weeks ago, two hundred Missouri editors heard successful newspaper owners of the East ascribe their prosperity to this quality now becoming so important in American life. Women's clubs discuss it eagerly as touching upon the age-old problem of hired help. Business men devour it at luncheon and hasten back to their offices to figure out increased profits. The building trades are in a frenzy over it, and tagging along at the rear come a few ministers shouting for efficiency as if it were the one panacea for all the ills of life, forgetting, in many cases, that efficiency in the pulpit would be the chief joy of nine tenths of the churches.

There have been other crazes in this country, of more or less importance—"Frenzied Finance" and "The System" and "Conservation" and goodness alone knows what. Within a few months, doubtless, "Efficiency Clubs" will be organized in cities and small towns; debating societies will writh over its possibilities; poets will weep in their efforts to find something to rhyme with it, and we shall be fortunate if Victor Herbert or Harry B. Smith does not write a comic opera about it, or Owen Davis startle his audiences with a melodrama based upon its wonderful power.

Men of good sense know that increased earning capacity, economy of operation, elimination of waste, mean dividends, that dividends mean—usually—better living, and that better living means better men and women. Therefore, efficiency is right. But it must not be allowed to cover all the shams and the palpable ignorance and the follies of a lot of truants along the pathway who have neglected their chance. If you can shuck twice as much corn as Bill Smith, you are that much more efficient, and your accomplishment is more dignified than that of the broker in Wall Street who squeezes a fortune out of his dupes while a broker in the next room fails. Frederick Winslow Taylor has written a book upon "The Principles of Scientific Management," and Samuel Gompers declares it isn't so. And there you are. The fact is, the more efficient you are the more prosperity will smile upon you. It is the efficient man who counts for something, but for no more than in the past. The difference is that until recently little has been said about it. If the world had not been blessed with efficient men and women it would be a sorry abiding place. We should have few comforts if some men's brains had been no quicker than others.

So far as the rural problem is concerned, and the church in town or city, it is the efficient minister who gathers a flock about him. A notable example of this class is the Rev. A. E. Holt, of Manhattan, whose church has become the favored home of faculty members and students in the agricultural college. This result has not been brought about by any cheap sensationalism, but by the fact that Mr. Holt has had something to say worth hearing, a message that means something. The minister who concerns himself with human beings and present-day problems and lets theological differences sleep where they belong is the minister whose church succeeds. The minister who goes out and studies the world about him and does his little part to improve it where it needs improving is the minister who deserves support and gets it. That is what Mr. Holt is doing. That is efficiency worth while. This minister has it.

AN AGRICULTURAL EDITOR.

The greatest defect in some farm papers to-day is that the editors do not have a knowledge of scientific agriculture. Consequently their writers and correspondents frequently "put one over." As a result the farmer loses confidence in the paper, and a farm paper must have the confidence of its readers if it is to be successful.

The organization of a farm journal staff may be divided into the news, editorial, and business sections. The news section should be written by members of the staff so that a definite style may be established. Articles by

A GOLDEN TEXT.

To every thing there is a season, and a time to every purpose under the heaven:

A time to weep, and a time to laugh; a time to mourn, and a time to dance.—Ecc. 3:1, 4.

writers not on the staff should be printed only when they really are worth while. A majority of the letters found in farm papers to-day have little value. The copy reader should correct the mistakes in all the copy sent in. If he lets as many errors get into print as are found in the average farm paper he should be discharged. Most of the heads on farm stories are uninteresting and lifeless. They are innocent of active verbs. The head on a well-written farm story should be as interesting as the head on a front page business story in the daily newspaper. Most of the articles in farm papers are too long. There are very few stories that should be over two columns in length. More people will read the story if it is cut down to half a column.

There are two important essentials of success in farm journalism. One is to have something to say. The second is to say it in clear, terse English that the average reader can understand.

The paper should have an editorial page and all editorials should be kept on that page. And it need not be farm topics alone that are discussed there. If the editor has ideas about politics, religion or social problems, there is no reason that he should not express them. And if he is a wide-awake, "live" man he will have ideas. Well-written editorials in a farm paper may be made a power for great good.

The business office should have one successful specialist—the business manager. The field men also must be high grade and they must be paid good salaries. Upon their efficiency depends the life of the paper.

The prosperity of the business office is vital to the success of the paper. But it is not necessary that the business office should control the managing editor. A paper run on the principal that the amount of money that may be made is all that need be considered will not have the greatest success. The subscribers lose their faith in the sheet. If they do, the subscription list will not increase rapidly. And the advertising rate is based upon the circulation. F. B. N.

TOO MANY BIG FARMS.

There are nearly fourteen thousand farms in Kansas of more than 500 acres, an increase of ten per cent in that size over the last census. New York has only 1343 farms of 500 acres, a decrease of one per cent.

Some persons may not see the grave significance of that announcement. Perhaps this will help to elucidate it: The value of the buildings on the farms of New York state averages \$21.50 an acre. In Kansas it is only \$4.60! In New York the total farm acreage is 21,998,000. In Kansas it is 43,261,000 acres!

The bigger the farm, usually, the smaller and poorer the buildings. The more land you buy the less money you have for the joys of life—and there are not too many as it is. Stop buying land. Invest in motor-cars if you must spend your money; or get some modern comforts for the family. You won't pass along this way again very soon, father.

THE NAIL BITERS.

That was a lot of fine, timely advice handed to the students in assembly a few mornings ago by Dr. S. C. Emley, of the state board of health and the University of Kansas. But there should be a limit. It was all very well for Doctor Emley to emphasize the importance of personal hygiene; it was proper for him to deride the gum chewers. One might even find justification for warning certain persons of the dangers that lurk in promiscuous osculatory demonstrations.

But how, if you please, Doctor, is one to find vent for one's overcharged emotions in these high-pressure times

if one is not to be allowed to bite one's finger nails? And how, just for the sake of accuracy, how does Doctor Emley know that nine tenths of the women in Kansas bite their nails? Did the census taker ask about it? Imagine that official, especially after he has inquired about a woman's age, pursuing his impertinence with the startling "Ah, pardon me, madame, but do you bite your nails? Ah, thank you; anyone else here bite their nails, and why?"

If one prefers to take the risk and is reasonably careful about regular visits to the manicure, is there anything easier to bite than the pink tips of a lady's finger nails? The point the doctor should have emphasized is this: Everyone should be careful to bite only his or her own nails. Honestly, people, isn't it coming to a pretty pass?

WHY DID THEY STAY?

Several boys, and a girl, children of farmers, were asked why they had desired an agricultural education; what had interested them to the point of determining them to stay on the farm? The replies did not bear out the assertion of a farm journal ex-

change, that present-day farmers' boys are not interested in agriculture. Some of the boys said ground had been set aside for them by their fathers, to use as they might desire, as a reward for faithful service. Some owned a pig or a calf. One had a slough in which to raise ducks and had saved enough money from the sales of feathers and dressed ducks to buy several head of cattle that now are growing into a herd. The girl had grown vegetables and used the resulting money as she desired—and she had desired to spend it for clothing that pleased her.

Every one of these boys was sure that a farmer's son could be interested in farm life if he received a share of the things he helped to create. No boy likes to feel that he is working for his clothes and board. That isn't American. Furthermore, these boys agreed, if a boy had to work all the time he would be very likely to leave the farm. Every boy and girl must have time for recreation.

THE CHEAP ORCHARDIST.

"Can't you give me a cheaper remedy?" What should you say of a farmer who proclaims that sort of a question when you give him the only safe directions to rid his apple orchard of canker-worms? Pretty poor farmer, isn't he? His apples, worth thousands of dollars, probably, may be ruined because he will not spend a small amount to buy the necessary arsenate of lead to kill the pestiferous canker-worm. After the crop has been destroyed you'll hear that kind of farmer say—if you're in his neighborhood—that he couldn't get any help from the agricultural college.

Watch out for the cheap farmer. There are not many, but there are some. When there is danger of frost he hesitates to try the fire pot system because the oil costs so much.

JEFFERSON DIDN'T KNOW.

Thomas Jefferson, whose memory has been burdened with so many things, was not much of a prophet after all. He firmly believed the day would come when everything human beings needed would be made in the homes only. What has become of the few simple manufactures that once were a part of every-day life? Where are the little mills, the spinning-wheels; where are the local butchers; "hog-killing time?" Hardly an article a family uses is made at home or in the home town nowadays. Even the local creameries have disappeared. Farmers buy back millions of dollars worth of meat which they produced. You seldom hear of a farmer who kills his own meat; and where is there any homespun? It is about the highest-priced cloth in the market to-day, and about the homeliest.

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The Road to Ballyclary.

Oh, the road to Ballyclary, it goes dipping, dipping, dipping, dipping, Down many a ferny hollow, through many a mossy glen; And a little maid who treads it goes tripping, tripping; She tripped her way into my heart—I cannot tell you whence. Her eyes are gray of Ireland, her cheeks are pink of rose, And the sweetness of her smiling, why, everybody knows. She's a bonny Irish lassie, from her elflocks to her toes, On the road to Ballyclary in the morning. She passes by my window when the sun is shining, shining; Sometimes she casts a fleeting glance, sometimes she never looks. She does not know an aching heart is pining, pining, pining, Pent up by bricks and mortar, 'mid the papers and the books. She chats with other lasses, but the men she passes by; She never seems to see them—I often wonder why. Is she waiting for a stranger? Fate send that it be I. On the road to Ballyclary in the morning.

—Helen Combs, in *The Smart Set*.

SUNFLOWERS.

"The mean temperature" was about the best literary feature of the weather report for April.

An air route from London to Paris is reported "opened." Must have been pretty thick cutting through London.

Hutchinson once was the home of the McManigals. The *Gazette* says so. But Mac never blew up anything in Hutchinson.

About the most uncertain thing in Kansas just now is the rule for gardeners beginning: "After all danger of frost is past—"

Cleopatra, it now has been proved, wore a hobble skirt. It should not be forgotten, however, that Cleo was the person who got stung.

And don't forget this: Rural communities can well afford to lose some of those that leave for the cities. They'll be doddles wherever they go.

Concrete is being boomed as a chief product of Mexico. They need all the concrete they can find down there—or anything that will keep them together.

The Kansas State Sportsman's Association is to try to have new game laws enacted. Anything will be welcome that will repeal the present interlocking code.

Thirty states favor the income tax, says *The Christian Science Monitor*. With the income once provided we believe we might calmly discuss this tax, and, possibly, favor it. However—

Another huge diamond has been discovered. It weighs 224 carats. Our thoughts do not operate above $\frac{1}{2}$ carat and we do not believe any gentleman should wear a diamond larger than that.

What a strange memory: Mrs. Armour's "friend" remembered where she had hidden \$100,000 worth of stolen bonds and plunder, but at that point she forgot, and \$50,000 remained unaccounted for.

A lot of old maids must have chuckled, gleefully, over the item in *The Star*, a few days ago, telling how a burglar was found under the bed in a Kansas City home, and arrested. Years of watchfulness rewarded.

Harold.—The book on table manners was made too large for the pocket because it was feared students might get so interested in it that they would forget to eat. However, it may easily be carried in any ordinary suit case.

It is noticeable that those who prate most loudly about being independent are best able to afford it. The little editor with 2500 circulation and a family of seven will bow his neck to the advertisers' ax with proper humility.

Men talk learnedly about many things about which they know nothing. One says dogs do not think and another declares Mars is not inhabited. We would sooner have the good regard and the obedience of a fine bird-dog than libraries of such truck.

The country is again to be stirred by expert testimony. It is declared that gas, not dynamite, caused the explosion in the Los Angeles *Times* building when twenty persons were killed. This recalls the explosion in the First National Bank building, Kansas City, two or three years ago, when dynamite, a bomb, sewer gas, and other things exploded—according to witnesses.

LOCAL NOTES.

John Cooper was in Lawrence this week on a potato-investigation trip.

Miss Adah Evans, of Kansas City, Kan., a student here last year, is visiting college friends.

W. H. Andrews, assistant professor of mathematics, judged a literary contest at Alma, April 29.

L. H. Beall, assistant professor of English, was a judge at a high school debating contest at Clay Center, April 28.

Albert Dickens, professor of horticulture, was in Hutchinson this week on orchard investigation for the college.

The Aztec fraternity entertained the Eta Beta sorority one evening last week with a hay ride to Wild Cat and a picnic dinner.

Frank Harris, '08, assistant in the department of architectural drawing, intends to spend his summer vacation studying and sight-seeing in Central Europe.

W. H. McGlasson, of Beatrice, Neb., visited the college recently. Mr. McGlasson is a specialist in poultry. He has a large poultry farm at Kit Carson, Colo.

The forestry department has been transplanting red cedar seedlings to the northeast part of the campus. The department transplanted 80,000 of the seedlings.

E. F. Miller, instructor in botany, made an interesting talk in chapel Tuesday morning on: "The New England of To-day." He compared the conditions of life in New England with those in the West and South.

Miss Ella Weeks, instructor in the department of architectural drawing, left last Monday for Springfield, Ill., where she will attend the annual meeting of the American College Art Association. Afterward she will visit the University of Illinois.

Miss Flora Knight, assistant in English, judged a five-county district debate and declamatory contest at Marysville, April 28. Miss Knight presented the medals to the winners of the contests and invited them to come to the Kansas State Agricultural College next year as students.

ALUMNI NOTES.

S. N. Chaffee, M. D., a member of the class of '91, is practicing at Talmage, Kan.

W. B. Chase, '98, is working for the Independent Telephone Company at Garden City, Kan.

H. E. Repert, '10, visited the college this week. He has charge of the storage battery department for the Santa Fé railroad, with headquarters at Topeka.

Mr. and Mrs. R. S. Kellogg, of Wausau, Wis., announce the birth of a son, whom they have named Gifford, May 18. Mr. Kellogg was graduated from the Kansas State Agricultural College in '96.

Dr. Arnold Emch, M. S. '94, associate professor of mathematics in the University of Illinois, read a paper one day last week at the annual meeting of the American Mathematical Association in Chicago.

Mr. and Mrs. W. H. Sanders visited the college recently. Mr. Sanders graduated with the class of '90. Mrs. Sanders is also a graduate. They live at St. John, Fla., where Mr. Sanders is a canal engineer.

James E. Brock, '08, is now living at Heber, Cal., six miles from the line between the United States and old Mexico. Mrs. Brock, formerly Mary Lecrone, attended the Kansas State Agricultural College several years ago.

Word was received recently from Ava (Hamill) Tillotson, '92, telling of the death of her father, Dr. Thomas Hamill, of Olathe, Kan., March 18. Doctor Hamill was eighty-five years old. Many of those who were students here while Dr. Lloyd Hamill and Mrs. Ava Tillotson were in college doubtless will remember their father, who was quite prominent in college affairs.

SPEAKING OF POTASH.

The United States has a Supply and Learned of it in Time.

Germany and the American fertilizer trust haven't all the potash—not quite. Uncle Sam is some potash himself in his own proper person—got it on his public lands. And he had the sense, under Garfield's secretaryship of the interior, to hang onto it, too.

Lands underlain with phosphate rock have been withdrawn from entry to this extent: Montana (acres), 33,950; Florida, 37,439; Utah, 107,745; Idaho, 1,101,517; Wyoming, 1,267,494. So you see that while Germany may have a bigger potash scandal than we have on this side of the Atlantic, it doesn't necessarily follow that she has more potash.—*The Wichita Beacon*.

JUNIOR-SENIOR BANQUET.

The Annual Event Will Take Place Monday, May 29.

The annual junior-senior banquet will be held in the Nichols Gymnasium the night of Monday, May 29. A farce, written by the juniors, will be given in the Auditorium before the banquet. The scene of this farce will be the campus of the Kansas State Agricultural College, and the leading characters will be members of the upper classes.

The main floor of the gymnasium will be used as the banquet room. The carpenters and painters are still at work on this floor, but they will finish in time for the banquet. The electric wiring will be completed by May 29.

The banquet room will be decorated with senior class colors and the table decorations will consist of an original design of class colors and flowers. The menu has been chosen. This part of the work will be planned and carried on by the domestic science girls of the junior class.

There probably will be eight after-dinner speakers. The list of these and their subjects will be announced soon. A special orchestra will play for the farce and during the banquet.

The junior class has levied an assessment of \$2.50 on every member for the expenses of the banquet. This assessment must be paid by May 13. Edmund Magill is the chairman of the junior committee in charge of the banquet. The members of his committee are: Nettie Hanson, Julia Holmes, Mary Williams, Pauline Kennett, Jessie McKinnie, Mary Hickok, Virgil Miller, Harry Smith, Floyd Nichols, Loren Fowler, and Scott McDonald.

APRIL WEATHER.

The "Mean" Temperature Was 53.18 Degrees—Below the Average.

The mean temperature for April was 53.18 degrees. The average temperature for this month during the last fifty years was 57.42 degrees. The highest temperature was 92 degrees, and the lowest 24 degrees. The lowest temperature recorded here for April was 17 degrees in 1899. The highest was in 1887 when the thermometer registered 98 degrees. The rainfall was 1.89 inches. There were 18 clear days, 4 partly cloudy, and 8 cloudy days.

The average barometric reading was 28.99. The average for the last 37 years was 28.82. The total wind velocity was 8045 miles. On one day the wind blew about 40 miles an hour for a short time. In 1896 the total wind velocity for April was 12,607 miles.

There have been 14 years during the last 50 in which the temperature in May went below freezing. The lowest May temperature was 24 degrees in 1909.

Kansas Fourth in Gas.

The natural gas industry surpassed in 1909, both in the quantity and value of the gas produced, the record of any previous year, the estimated value being \$63,206,941, as against \$54,640,374 in 1908. In 1909 Pennsylvania led with an output valued at \$20,475,207; West Virginia came next with \$17,538,565; Ohio was third with \$9,966,938, and Kansas was fourth with \$8,293,846. No other state produced \$2,000,000 worth.

DON'T USE AN AX, FATHER

DISCOLATE THE CHICKENS AND SAVE THEM PAIN—MODERN IDEAS.

Poor Bleeding Means Poor Flavor and Consequently a Lower Price—The Canadian Method Is Explained.

Don't use the ax, or the wringing method for killing poultry. This not only means pain to the chicken, but poor bleeding follows the use of either. Poor bleeding means poor flavor, and poor flavor means a poorer market and a lower price.

There are two approved methods for killing poultry. One is called sticking, the other, discolating. In both methods the chicken is hung, head down, to bleed. When the sticking process is used, take the head of the chicken in one hand and a thin, flat-handled knife in the other. The knife should have a sharp-pointed blade and a straight cutting edge, the blade being not more than two inches long and one fourth of an inch wide. To kill the chicken painlessly, thrust the knife through the middle line of the roof of the mouth until it touches the skull midway between the eyes. This paralyzes the chicken. After cutting the arteries in the neck, it soon bleeds to death. It can be picked dry, or without scalding, because when it is paralyzed the feathers loosen and can be plucked without breaking the skin. To cut the arteries, make a small cut on the right and left of the roof of the mouth where the bones of the skull end.

The other method, called discolating, is of Canadian origin. It causes some pain, no doubt, for a moment. To kill a chicken by this method take the head between the thumb and forefinger, the thumb resting on the back of the head and the forefinger on the windpipe or under the beak; take the legs by the other hand and lay the chicken over the knee. Then give a quick pull, just enough to dislocate the neck and break the spinal cord. The skin of the neck is not broken and the chicken is then hung to bleed. The blood collects at the base of the neck. This method should be used only for local trade or private use and not for a distant market, since the blood collects in the neck and discolors the skin.

PLANKS FOR FISH MADE HERE.

The Girls Do the Cooking After the Boys Prepare the Boards.

Did you ever eat planked fish? It is delicious. The planks used by the domestic science department at the Kansas State Agricultural College are made of very hard, polished oak. They are about fourteen inches long, eight inches wide, and one and one half inches thick. The planks were made by the students in the wood-working department, at a cost of about \$1 apiece. Hickory, ash, or walnut may be used. In the baking a delicious flavor from the plank is absorbed by the fish.

The fish is boned and placed on the plank with the skin side down. Two nails may be put at the head of the plank to raise the head of the fish, but this is not necessary. When the fish is nearly done, arrange a decoration of mashed potatoes, put through a pastry bag, around the fish. When it is removed from the oven garnish with lemon and parsley and serve on the plank.

The best way is to place the plank under a gas flame, and cook the fish in this way. The fish seems to have a better flavor, but gas is not always available.

Steak may be planked in the same way. It should be parboiled for a few minutes before putting it on the plank. A decoration of Franconia potatoes around the steak is pretty, with a few sprigs of parsley added before serving.

A Man Just the Same.

The fact that a man is not a "grandstand player" is not a sign that he is lacking in the attributes of manhood. This is the opinion of J. W. Seearson, associate professor of English. He expressed it in a chapel talk Wednesday morning. Professor Seearson told

of the college career of a student at the University of Nebraska. The student had to work his way through school, started in greener than the average student, and had to surmount many obstacles. His was a heroic life, Professor Seearson said, and it was a success. He was a star football player, a mainstay of the baseball nine, an excellent student, and a devout Christian. Professor Seearson told the story of this man's college life and left it to his hearers to interpret it and apply the lesson that was expressed.

DO YOU USE LEFT OVERS?

These Menus Are \$1.25 for Family of Four Persons—The Figures.

The dinner and supper in this week's menus were served last week in two successive days in the domestic science dining-hall. The second day's meal is called supper by THE KANSAS INDUSTRIALIST to show how the girls in the domestic science department are taught to economize by making use of left overs. Sixty-four cents for dinner makes it possible to serve an enjoyable supper for 25 cents. A 36-cent breakfast brings the day's table expense to \$1.25.

Here is what the girls spent for supper:

2 tbsp. 40 per cent cream.....	\$.013
2 tsp. butter.....	.004
4 cups milk.....	.07
2 lbs. potatoes.....	.03
1 cup Graham flour.....	.013
4 tsp. tea.....	.02
3 nuts.....	.003
½ lemon.....	.013
2 eggs.....	.025
cheese.....	.05
Total.....	.25

BREAKFAST	
Oranges	Powdered Sugar
Puffed Rice	
Broiled Breakfast Bacon	Toast
Coffee	
DINNER	
Lamb Chops	Glazed Sweet Potatoes
Baking-Powder Biscuit	Pea Salad
Cocoa	
Apricot Sherbet	Cake
SUPPER	
Minced Meat on Toast	Riced Potatoes
Apple Pickles	Graham Muffins
Cheese Salad	
Baked Custard	Kisses

A dainty way of serving the custard is to bake in individual molds, turn over and serve with a spoonful of maple syrup with whipped cream piled lightly on top of that.

The charm of a meal frequently lies as much in the service and table appointments as in the excellent cooking—a point too often overlooked. It always is worth while to pay attention to the manner of serving meals.

CUSTARD PIE, 57 VARIETIES.

Some of the Best Known Ways to Make This Dessert.

Do you like custard pie? How would you like to sample 57 varieties, for there are that many ways of making this delicacy.

All custards are made upon the same basis, the difference being in the flavorings and additional decorations.

The lemon pie probably is the most popular because of its slightly acid taste. It contains the juice of one or two lemons, and may or may not have a little of the grated rind as well. It is finished with a meringue on top.

The coconut pie is similar to the lemon pie in the making, only that it requires less sugar and coconut is substituted for the lemon; and an additional decoration is the shredded coconut in the meringue.

Cream and chocolate pies are good, but very rich, because of their high per cent of fat.

The plain custards with different flavors are made a great deal, the number of kinds depending upon the number of different flavors.

Foundry Makes Tablet.

The foundry has just completed the casting of a large bronze tablet for the new Carnegie library building in Anthony, Kan. The tablet was modelled by the department of architecture. It bears an inscription telling that the building is a gift from Andrew Carnegie. On the tablet is also a large medallion with the picture of the giver.

DEATH FROM TWO PESTS.

MOSQUITOES AND FLIES ARE BREEDERS OF DANGEROUS DISEASES.

Malaria and Typhoid Might be Prevented if Men Would Observe Rules of Sanitation—Precautions to be Taken.

Two of the most common insects have been the cause of a large number of deaths in both city and country: Mosquitoes and flies.

Malaria has been called a country disease by medical men. The malaria mosquito breeds in pools of still water along the streams and in swampy regions. The old idea, that malaria is caused by breathing the miasma of the swamps, is erroneous. It is contracted only through the bites of certain mosquitoes. There is a difference between the malaria and the more harmless mosquitoes. In order to be able to distinguish, you must know something of the conditions under which the malarial forms breed. The eggs of the common mosquito and those of the malaria may be easily distinguished.

WIGGLERS WITH MALARIA.

The eggs of the first named are laid in a raft-shaped mass on end, while the malaria are always laid singly upon the surface of the water. The larvae of the common mosquito are known as wigglers. They are found in horse troughs and rain-water barrels, and at intervals they return to the surface to breathe. The tail that they extrude while hanging near the surface is simply the breathing tube. The malarial wiggler is somewhat different shaped, and when resting at the surface, as it does most of the time, it lies with its body parallel to the surface.

In order to prevent malarial mosquitoes from breeding in a vicinity, one should be prepared to recognize the larvae, and when seen a thorough search for all possible breeding places should be made, and after the breeding places have been found they should be drained or filled with earth. If this is not possible, the surface of the pond can be covered with a thin film of kerosene oil.

AS TO THE TYPHOID.

Another disease that can be prevented is typhoid fever, and the course of procedure necessary to control the disease is the proper care of the manure and the destruction of the flies. In the city the source of the disease is usually from country milk that has been contaminated through vessels that have been washed in water infected with typhoid germs. In the country the well-water is contaminated very easily by the drainage water that carries all kinds of impurities from the manure pile and other sources of its kind. One of the active agents that carries the germ directly to the kitchen is the house fly, and in the country this insect is very abundant. The breeding place of the fly is around the stable. Flies multiply with amazing rapidity. If manure piles can not be removed at once they should be treated with chloride-of-lime. This is one of the cheapest and most effective treatments.

BEWARE THE GLANDERS!

Use a Bucket for Your Horses and Avoid Diseases.

Use buckets. Drinking troughs for horses along a much-used road should not be encouraged. They are the means by which glanders and distemper are transmitted from one horse to another. Many a valuable horse has had to be killed because of this disease.

The cost of installing a water system would not be large in proportion to the benefit derived. There would have to be a windmill and a tank. If close to a city water-works system a small pipe line could be run along the road and a hydrant used to supply the water.

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THIS LITTLE PIG DIES.

THE TRAGIC STORY OF THE GUINEA AND ITS MARTYRDOM.

Pathologists Could Scarcely Get Along Without These Animals for Bacteria Tests and Other Experiments—“Cavy” is the Name.

What would pathologists do if it weren't for guinea-pigs and rabbits and frogs and the other inoffensive little martyrs that die for humanity's sake? Many persons know no use for the guinea-pig, but it helps to save lives, not in a way that wins Carnegie medals, it is true, but in a mighty important service nevertheless. Guinea-pigs are used in bacteria tests and other experiments.

SOME ANIMAL MUST DIE.

In laboratory work tests must be made with bacteria and antitoxin. Some animal must be used that is susceptible to bacteria, and that is why the guinea-pig is playing an important part in the work of disease prevention. Often guinea-pigs are standardized. That is, so many drops of antitoxin are needed to kill a guinea-pig, and that amount is taken as an arbitrary standard and other experiments and calculations made from it. Guineas are used in the laboratories at the Kansas State Agricultural College for experimental purposes.

The guinea-pig is not really a guinea-pig, but a cavy, and has been called by the wrong name for many years. The cavy is easy to handle, unusually susceptible to bacteria, costs little to keep, and is not especially valuable for any other purpose. It is also often used for heredity experiments.

THE CAVY AS A PET.

Three kinds of cavies are found, the Peruvian, Abyssinian, and English. The Peruvian has a long coat with many rosettes. The first-class Peruvian cavy has a thick, long mane and a heavy head of hair. The Abyssinian has a rough, wiry coat, radiating from several centers to all parts of the body. The English cavy has no especially distinguishing characteristics and is known as the smooth cavy. The cavy is a good pet, though not as domesticated as the cat, and costs little to keep. Cavies are kept on many farms simply as fancy stock. They are of many colors, and the three varieties are so intermingled as to make it difficult to distinguish among them. But the usefulness of guinea-pigs, or cavies, comes chiefly through the laboratory experiments.

AN ADDRESS BY DR. WHITFORD.

The Chief Forester From Manila is an Alumnus of This College.

At a special meeting of the Science Club, Monday night, Dr. H. N. Whitford, '90, gave an interesting address. Doctor Whitford is forester and chief of the division of investigation of the bureau of forestry at Manila, P. I. The subject of his talk was "Some Aspects of Tropical Forests."

TO BE THE NEXT COMMANDANT.

Lieut. Harbold, 25th Infantry, Will Succeed Captain Boice Here.

The commandant of cadets next year in the Kansas State Agricultural College will be Lieutenant R. P. Harbold, Twenty-fifth Infantry, United States Army, now at Fort Lawton, Wash. Lieutenant Harbold is a native of Pennsylvania and is a graduate of the West Point Military Academy, in the class of 1904. He has served continuously with his regiment since graduation. His athletic record is excellent. He was a member of the football and hockey teams at West Point, played basket-ball, and was a member of the fencing club. Since graduation he has been assistant coach for his

regimental football team, turning out uniformly a winning team. He has also been regimental athletic officer. He took the American Regimental Athletic Team to Manila in 1908 and competed successfully against the best athletes of the Philippines. He is an expert swimmer, and has given instruction in this valuable accomplishment.

Lieutenant Harbold comes very highly recommended as to his military qualifications and his morals, by Brigadier General T. W. Hoyt, Colonel W. P. Evans, Major J. P. O'Neil, Captain M. J. Leinahan, Captain J. D. Leitch, Captain P. M. Shaffer, for-



A Big Crop that Year.

merly commandant of cadets here, and Captain C. H. Boice, present commandant of cadets. Lieutenant Harbold will report for duty July 15.

IONIANS WON THE PRIZE.

The May Festival Was a Decided Success in Every Way.

The May Day Festival at the Kansas State Agricultural College May 11 was a decided success. The festival grounds were located on the campus east of the Auditorium.

The proceeds will be lent to students desiring to attend the Lake Geneva and Cascade conferences. The money is to be paid back in two years.

The Ionian Literary Society won first prize in the stunts. This society is entitled to send a member to the Cascade conference free of expense.

The crowning of Miss Clara Morris as May Queen by Mrs. Mary VanZile, dean of women, and the May-pole dance given by Miss Enyart's pupils were the main features on the program and were very successful.

Students Gave a Recital.

The students of the music department gave a recital last Thursday night, one week ago. The attendance was small, probably on account of the mid-term examinations. Every number was good. Miss DeNell Lyon, as usual, pleased the audience especially, as did Miss Almeda Marty. Ruben Vilander played Fadette, by Bohm, excellently. Leslie Baker's vocal solo was enjoyed very much, also the duet, "Calm as the Night," by Miss Helen Myers and Mr. Baker.

For a Family of Five.

To the Kansas Industrialist:

Mrs. Scott's recipes were all for meals to be served a family of four: father and mother and two children. We have three children. What should we do? My mother is coming to live with us, too.—Houston Avenue.

For every additional child add one carrot and two eggshells. For your mother you should add an onion.

Finely powdered bath brick cleans knives quite as well as knife polish, and is more economical.

FROM 105 TREES \$967.40.

WHAT A COLLEGE EDUCATION DID FOR BUCKMASTER'S APPLE ORCHARD.

Extension Department Experts Used the Spray and 456 Bushels of Choice Fruit Resulted—It Had Loafed for Many Years.

Isham Buckmaster gave his twenty-year-old orchard a college education last summer, whereby he made a profit of \$967.40 from 105 trees.

For years this orchard had been a loafer, content with producing green foliage and an occasional inaccessi-

plicated in the other family orchards of Kansas."

The college course began last spring. Two experienced men were sent to the orchard and found it alive with apple diseases.

"Spray," came the order from the college. And spray they did—four times. About half the orchard—105 trees—was treated.

Isham Buckmaster helped the spray-ers and learned all about spraying. He helped to mix the spray; he took his turn at pumping, and then went about his other farm duties, waiting until apple-harvesting time.

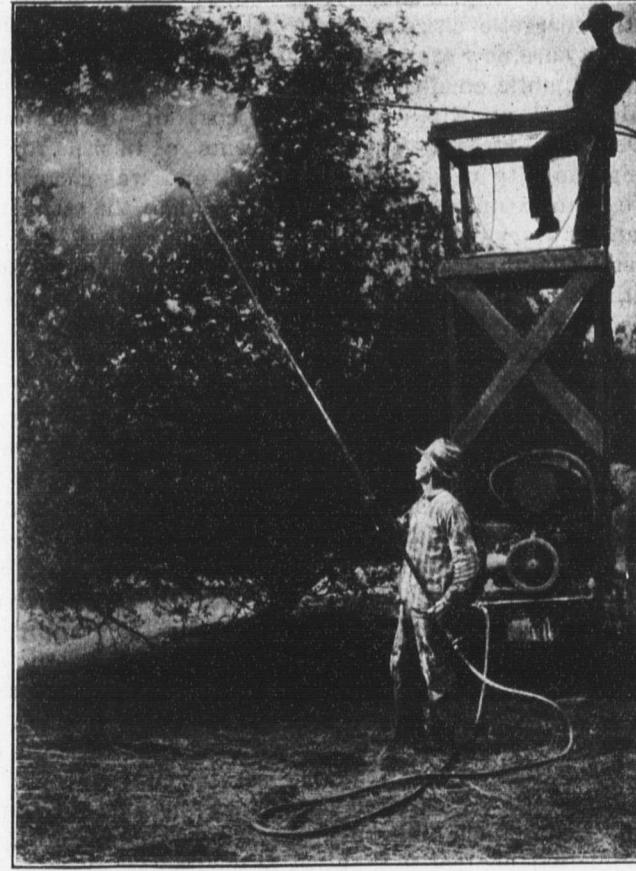
AT \$1.65 A BUSHEL.

It came, and Isham Buckmaster hired pickers to help him, for his trees were loaded with big, red fruit. Four hundred and fifty-six bushels of choice apples were picked and sold at \$1.65 a bushel. That brought a total of \$752.40.

But this successful orchardist had neglected to thin his fruit, conse-quently there were a good many small apples. They were sound, but hardly large enough to be marketable. So into the cider mill went the small apples. Out came twenty-two barrels of cider, which was sold at \$12.50 a barrel. That made \$275 more.

Then Isham Buckmaster picked up all the windfalls. He sold these. They netted enough to pay for all the picking and packing. Never had paid much attention to windfalls.

Adding all expenses, including \$33 for a barrel hand sprayer, which was still good for many years' use, the man who had sprayed his orchard found that carrying out the college ideas had cost him about \$60. That included the cost of the spray, but not the wages of the men from the college, as the state paid them. Then, adding the profits of the 456 boxes, \$752.40, and the cider profits, \$275, he found that a total of \$1027.40 had been made on those 105 trees. Deducting the \$60 for expenses, a net profit of \$967.40 went into the bank account last fall—



Educating an Orchard.

And ever since that day, last fall, when Mr. Buckmaster went into his orchard and saw what the harvest would be he has been glad that the agricultural college, through its extension department, came down and inspired his orchard, for it must have been inspired.

"It was just a common orchard. There are 10,000 others in Kansas just like it," said C. V. Holsinger, expert horticulturist with the extension department. "For that reason, whatever we could do there could be du-

the reward of scientific orcharding.

That is the story of Isham Buckmaster's first year of modern orcharding. It didn't take much time, either. And what a pleasure it is, he says, to grow good apples, and he accents the "good."

The Royal Purple March.

G. A. Westphalinger, leader of the college band, has composed a march called the Royal Purple. He has dedicated it to the class of 1911.

MAKE YOUR GIRL HAPPY.

FIX UP THE FARM HOME SO THAT IT WILL BE ATTRACTIVE.

Let Her Have a Horse and Buggy or a Pony so She Can Visit Her Friends—All Girls Like Pretty Clothes.

Make your girl happy and contented if you would keep her on the farm. That's what one girl student at the Kansas State Agricultural College says, and she should know for she has lived on a farm.

If it is at all possible, equip your house with modern conveniences. A house that is heated evenly by some good system is cared for more easily. By all means, have the water piped into the house, and if possible have a bathroom. Provide some of the modern, labor-saving devices in the kitchen and bright new utensils. Every girl enjoys working with the best equipment.

GIVE HER A HORSE.

Girls will be much more contented with farm life if they have some conveyance that they can use whenever they choose. Let a girl have a horse and buggy or a pony and saddle and plan your work so that she will have time to use them. Loneliness is the most frequent complaint made against country life, so let the girls have an outing once in a while. A trip to the city or a visit with a friend will help to content any girl.

Neighborhood clubs will do much to brighten the life of the girl on the farm. At the meetings topics of interest to the girls can be discussed. Some line of study can be taken up by the members if desired. Once in a while, an evening meeting to which their boy friends are invited will add to the enjoyment.

Do not neglect the girl's education. In many farm homes the children are kept at home from school upon the slightest pretext. Then the rural schools need attention. Better equipped buildings and better prepared teachers are needed. Teachers' salaries must be increased to obtain the best ones. A school should represent the community that supports it. The studies should include agriculture for the boys and home economics for the girls.

GOOD READING, TOO.

After a girl is through country schools, if possible she should be sent away to school, preferably where she can study domestic science.

Good reading material should be furnished—magazines, books, and newspapers. When you add a telephone to the list of things that the farmer's family can have there is no need of isolation in country life.

All girls like pretty clothes. A great deal of the discontent with farm life is due to the ridicule to which rural people are subjected.

SCIENCE CLUB TO MEET.

Professor Dains, of Washburn, Will Address a Special Gathering.

There will be a special meeting of the Science Club Monday, May 15. Frank Burnett Dains, professor of chemistry at Washburn College, will speak. His address will be along the line of medieval science. Professor Dains will use lantern slides to illustrate his talk.

New Plan for Text-Books.

W. A. McKeever, professor of philosophy, has a new system for his philosophy class this term. Instead of each student buying a text-book he or she was asked to pay fifty cents to a certain member of the class. With this money, Professor McKeever ordered several text-books. These were placed in the library where all the members of the class have access to them.

THE KANSAS INDUSTRIALIST

Issued weekly during the college year by the Kansas State Agricultural College, Manhattan, Kansas.

PRES. H. J. WATERS Editor-in-chief
PROF. C. J. DILLON Managing Editor
DR. J. D. WALTERS Local Editor

Except for contributions from officers of the college or members of the faculty, the articles in THE KANSAS INDUSTRIALIST are written by students in the department of industrial journalism, under the direction of Prof. Charles Dillon.

The typesetting and other mechanical work is by students in the school of printing, of which J. D. Rickman is superintendent. Both these departments are in Kedzie Hall.

Newspapers and other publications are invited to use the contents of the paper freely without credit.

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SATURDAY, MAY 13, 1911

THE FARMER'S WIFE.

The farmer's wife long has been the pet subject for the idea-poor-stricken editorialist, but recently she has come in for an unusually large share of attention. Someone, it appears, has taken exception to mother's wearing apparel; she didn't cut quite so wide a swath in society one day, last week, somewhere; the children were ashamed of her because her duds were homemade and hung a bit awry from the corners.

Well, what if they did? How did she grow angular and why did she make her dress—not gown, if you please—instead of having a man tailor work on it? Why did she break into the crust of the so-called smart set arrayed in a hat of the year of the Big Wind? Why did she have flat-heeled shoes heavy enough to use in following a plow to kingdom come? Why did she look tired and worn before the others at the church social or religious gamble, or whatever it was, had gotten a fairly good start on the night's disturbance?

Ask father, you concrete-hearted critics. Ask him how many acres he owns, and how about the new corn planter and the new lister and the new disc plow and his interest in the new thresher. That'll show you what was holding mother in the rut in which she has traveled, bleeds her heart, for thirty years, while father was gathering in the county section by section. No wonder she doesn't step so lively as in 1875. She has been getting up early and staying up late ever since the farm was prairie sod. She has been giving up to the whole family and denying herself this and that, and not a soul ever paid much attention to it until some ninny reporter, who wouldn't know a good story if you threw it at him in a bucket, wrote a smart-alec piece to the effect that "the farmer's wife didn't look as well dressed as some poorer women."

It's a pity the farmer's wife couldn't take that little five-cent reporter and tan the dust out of his alleged brain. If we didn't have a constitutional aversion to gambling it would please us to wager forty dollars to three cents that the reporter who emitted this latest yawn came from the farm, and came from it because he didn't have the nerve to stay there.

Once upon a time a farmer's wife in Iowa entertained a wayfarer at noon. She gave him a rather poor dinner. It was grease from start to finish, grease and fried things. Instead of being duly thankful for what he had received—gratis—the guest went before the Country Life Commission in Omaha, a few weeks afterward, and told all about that dinner; that is to say, he told all he knew about it—and it didn't include the tragedy. A faithful reporter put the story into his paper, and as she was a subscriber the woman read it, and cried. What else can a woman do? After her tears she wrote a letter to President Roosevelt in which she said that the day the ungrateful guest came along was wash day; the baby, two months old, was ill; the father—a renter, it chanced—was in the hospital for some reason or

other. With a crying infant and a lot of impatient farm-hands to feed, the woman had done the best she could. She was "plumb discouraged," she said.

It touched Theodore Roosevelt. He wrote the farmer's wife a letter that she has framed. She wouldn't take a lot of money for it. She is one of the heroines you seldom hear about until some yawn comes along. Don't forget that many a dear heart is covered with a dowdy dress.

WARSHIPS OR COLLEGES?

The battleship Kansas cost slightly more than \$7,000,000. The colleges and the university of the state for which this ship was named cost about \$6,000,000. Something in this to think about. Charles F. Thwing, president of the Western Reserve University, speaking along these lines, recently, in an address to the third National Peace Congress in Baltimore, said:

"The annual cost of maintaining a battleship is from \$740,000 to \$960,000. The number of universities whose annual budget exceeds these amounts can be numbered on your fingers. When one takes into view the depreciation of an armored cruiser or battleship, it is safe to say that it costs more to maintain a battleship for a year than to maintain Yale College for a year, and several times what it costs to maintain a college like Amherst or Williams."

President Thwing said that the value of the grounds of 500 colleges and universities in this country was estimated at \$67,000,000; of the buildings \$219,000,000, and of the productive funds \$260,000,000. The cost of 38 battleships which he named was, he said, \$236,551,438. The cost of maintaining these during 1910, he said, was in excess of \$24,000,000. The entire income of all the colleges in the United States during 1909 was, he said, about \$25,000,000.

"In other words," said he, "when one takes into view the depreciation of the battleship or armored cruiser, the entire cost of the 38 battleships for a single year is greater than the administration of the entire American system of higher education.

"The money which is thus wasted on naval armament would put the cause of the higher education of America upon a most efficient basis."

"IF I OWNED KANSAS CITY—"

Such a contingency being wholly impossible, it may do no harm here to enumerate a few things we would do if we owned Kansas City, a subject about which the energetic citizens of that energetic city are now exercised. We would build a public comfort station in the diamond at Ninth and Main and Delaware streets. There isn't one thing the city needs more urgently. We would open a first-class restaurant in every other block, in which a person might get a good, clean meal without giving a mortgage on next week's salary.

We would make certain big storekeepers quit sweeping after 8 o'clock in the morning—a violation of law. We would make it a capital offense for any one to "hop" the Independence car between Eleventh and Twelfth on Walnut at 5:30 p. m. We would finish Convention Hall, which, you may remember, was built in ninety days, a few years ago, and still costs \$10,000 a year for repairs. We would slap a certain Third Ward alderman on both wrists. We would enact a law against

any more performances of A Midsummer Night's Dream with pictures in the papers of all three sets of children. We would put "Penny" ice distributions under municipal control so that every one might know what was what. We would have an art gallery and a concert hall and a symphony orchestra led by Carl Busch, because we could not spare the leader from the agricultural college. We would have free music, too, as the people in Mexico have had for many years. We would have a fine, large, well-equipped industrial school where boys and girls might learn trades.

We would put out of business all fake charity grafters who now work the big office buildings. We would make the police salute every reporter. We would build a few of the long pro-

A GOLDEN TEXT.

In the morning sow thy seed, and in the evening withhold not thine hand: for thou knowest not whether shall prosper, either this or that, or whether they both shall be alike good.—Ecc. 11:6.

jected interurban trolley lines that have formed a network around this great city. We would tear down every bill-board. And we would print the credit line for this admirable editorial at the top of it, in caps.

CORN AND ITS COST.

It costs less to grow corn in the North Central States just west of the Mississippi river than in any other section, says *The Breeders' Gazette*. "The secret is largely in the small outlay for fertilizers on account of soil richness, and also in the efficient and cheap preparation of the broad fields with large implements and big teams. The average size of the corn fields on which reports were secured from this section was 42 acres, which was 50 per cent greater than for any other section. Nearly all of the work

cities the price is five cents, and the attendance is increased correspondingly.

An hour of pleasure is not too much for the young folks, and if father can be induced to broaden his face with a smile occasionally it will help materially in the brightening of the home. The shows present the beautiful, the ludicrous, the—well, there are few phases of life not pictured before you in the season's series. Thousands of dollars are spent in gathering the pictures, the field is searched thoroughly, and a good price is paid for the theatre talent.

The moving picture show is being reformed. Film makers are eliminating much of the suggestive. This is not because of a change of their own hearts, but because their fingers are firmly on the public pulse and they can discern a weakening response to questionable exhibitions. The sociologists believe this a good sign.

The boys who used to stage their five-pins-admission show of wire walkers and acrobats in the barn or wood shed, now stage a boxing match or a farce wherein the villain is pursued. They have become acquainted with the methods of criminals by pat-

WEALTH.

THE laws which at present regulate the possession of wealth are unjust, because the motives which provoke to its attainment are impure; but no socialism can effect their abrogation unless it can abrogate also covetousness and pride, which it by no means yet is in the way of doing. Nor can the change be, in any case, to the extent that has been imagined. Extremes of luxury may be forbidden and agony and penury relieved; but nature intends, and the utmost efforts of socialism will not hinder the fulfilment of her intention, that a provident person shall always be richer than a spendthrift, and an ingenuous one more comfortable than a fool. But, indeed, the adjustment of the possession of the products of industry depends more on their nature than their quantity, and on wise determination, therefore, of the aims of industry. A nation which desires true wealth desires it moderately, and can therefore distribute it with kindness and possess it with pleasure; but one which desires false wealth, desires it immoderately, and can neither dispense it with justice nor enjoy it in peace.—John Ruskin.

except cultivation and gathering is there done with three- and four-horse teams.

The cost of the work alone on the corn crop was least in Kansas, \$5.70 an acre. Oklahoma had a lower land rent so that it stood lowest in total cost at \$8.59 an acre. The lowest cost a bushel, exclusive of rent, was in Illinois and Iowa, 18 and 19 cents respectively, and the lowest total cost a bushel was in Iowa, South Dakota, and Wyoming, where in each case the cost was 30 cents.

The cost of production averaged 37.9 cents a bushel for the entire country, and was generally about 24 cents less than the estimated value a bushel in the fall of 1909. Prices of corn were highest in the South Atlantic and far western states, and the margin between cost and value was largest in those sections at 29.5 and 32 cents, respectively. In the other parts of the country the margin in 1909 was put at 21 to 23 cents a bushel on the average.

Yields in bushels and dollars were greatest in the North Atlantic states, where fields averaged only 9 acres in size and \$4.50 to \$10 worth of commercial fertilizer was applied per acre. The forage of the crop was utilized more completely there than anywhere else, and although much more work was put upon each acre of ground, the net income per acre was \$9.73, which was greater than in any other part of the United States. The farmers of the Central West and West may learn a lesson from this example of results obtained by thrifty New England farmers. They raise a large crop and use it all. Handicapped by a heavy expense for fertilizers, small fields, and a short season, they lead the United States in net returns per acre of corn.

TURN ON THE LIGHT.

Only ten cents for a one-hour's program of song, pictures, and vaudeville! Of course you can afford it. That is the offer of the moving picture shows and that is the spirit with which the public is supporting them. In many

ironizing the moving picture shows. This characterizes the unwholesome spirit social workers claim for the show. Few houses present objectionable pictures nowadays. The reason for criticism has nothing to do with what is shown on the curtain. The really unwholesome part of the entertainment is the dark room and the opportunity it presents for improper companionships. Darkness is bad anywhere. Disease lurks in it. Nearly all the wrongs are committed in the dark. Criminals and those disposed to evil thrive in it. Boys and girls meet in these places because they are dark. Turn on the light. O. W.

LAW FOR WOMEN WORKERS.

A bill providing that no woman shall be permitted to work more than nine hours in any day or more than fifty hours in any week in Missouri will take effect June 20, and most of the factories, stores, and laundries will have to recast their schedules before that time.

Nine hours is enough work for any woman, and just as long as she gets up early and has breakfast ready on time and starts the children to school clean and well fed, and does up the dishes and sweeps and dusts and makes the beds and does the mending and gets dinner and puts on something fresh and attractive and has her hair up in case someone should call—to sell something—and has supper ready promptly at 6:30 and does up the dishes and feeds the dog and the cat and sets the bread and puts the soiled children to bed at 8 o'clock and irons a few dozen things that couldn't be trusted to the laundry—and tumbles into bed at 11 o'clock scarcely able to sleep she's so tired out—while a woman does these trifling duties properly the law should protect her. Nine hours is enough in all justice. Don't let's be hogwash.

We'll Bite; Does it?

"Does Civilization Decay?" was the subject of a chapel speech by H. F. Roberts, professor of botany, Tuesday.

Fishin'.

Supposin' fish don't bite at first. What are you goin' to do? Throw down your pole, chuck out your bait, And say your fishin' thru? You bet you ain't; you're going to fish, And fish and fish, and wait, Until you've catched a basketful, Or used up all your bait. Supposin' success don't come at first. What are you goin' to do? Throw up the sponge and kick yourself, And growl and fret and stew? You bet you ain't; you're goin' to bait And bait and bait ag'in. Until success holds on your hook, For grit is sure to win. —The Publicist.

SUNFLOWERS.

People may not know much about politics, but they do know a whole lot about Schedule K.

Kansas is to have a "Tuberculosis Sunday." Every one, presumably, will have to cough up for the expenses.

Sherlock Holmes "came back." Apparently he got through "The Bolted Door," which had just been opened. O, you Sherlock!

It may as well be understood right here that we are unalterably opposed to the denatured credit line—in other papers. Kansas City papers please copy.

Not one of the so-called class "scraps" to date has been equal to the fight for a seat on the Independence line, at 5 p. m., Twelfth and Grand.

Iron bedsteads have supplanted the old wooden contraptions formerly used in Panama. The reason for the change will be apparent to any student of entomology.

Flies object to hops, also, Doctor Crumbine says. But, as the students have their hops down-town, the flies will work undisturbed so far as this institution is concerned.

Some cheap humorists in Manhattan got up an imaginary golf contest and indulged in a lot of funny business about the course. How anyone who has played golf there can joke about it is a mystery.

A school-teacher in Kansas City laments the fact that she cannot take Dr. Barnes' advice to get married. Her excuse is that she meets no men. "What," she wails, "what am I to do?" Advertise.

Mrs. Olive Celeste Moore White consented to being sued for divorce rather than live in Cincinnati. Having heard Olive sing, several years ago, we venture the opinion that Cincinnati can get along without her.

Mrs. Kathryn Salmon Boggs, of Topeka, says one should drink no water. You get all you need, she says, in taking a bath. Mrs. Boggs should remember that in Kansas many persons object to getting soaked.

Narrow skirts are blamed for a very noticeable decrease in the wool demand. The *Christian Science Monitor* says the figures are alarming. Does this refer to the figures inside the narrow skirts? Please answer.

A student at the Kansas University is trying to discover if chickens think. Should he succeed, will he please let us know what the chicken thinks, that is, provided it is something perfectly proper and all that sort of thing.

Missouri has assured Baron d'Estournelles de Constant that it is in favor of peace. A good time for the Baron to visit Missouri would be along in October, 1912. At least one side will really desire peace then.

Blue, Doctor Crumbine informs the eager public, will discourage flies. He urges that barns and house be painted that color. Doubtless the doctor also favors the growing of blue-grass, but forgot to mention it.

"Is Taft a Republican or a Democrat?" inquires a New York paper. Several, in the last two weeks, have worked themselves into fits over the same question. The point is, gentlemen, "Is Taft a satisfactory President?" That's the point.

The Chicago Women's Outdoor Art League is trying to encourage the growing of flowers in that city. The league should give some attention, also, to showing why crimson ramblers do not harmonize on brick walls, and why white flower boxes are prettier than the old green kind.

LOCAL NOTES.

W. S. Heitsman, of Topeka, called on faculty friends this week.

E. L. Holton, professor of rural education, addressed the Methodist Brotherhood Thursday night.

Miss Flora Hull, secretary of the Y. W. C. A., reports that 130 students have taken Old Testament poetry this year.

James W. Searson, associate professor of English, will deliver a commencement address to the graduating class of the Colby high school, May 18.

Dr. Francis H. Slack, professor of bacteriology, gave an address on tuberculosis before the State Federation of Women's Clubs Thursday, May 4.

E. M. Hopkins, professor of English at the University of Kansas, has sent to the Kansas State Agricultural College a preliminary report on English composition and teaching. The report was prepared by a special committee of the Modern Languages Association.

Elmer Brown, of Caney, Kan., who has been station agent for the Santa Fé Railway for twenty-five years, was here a few days ago visiting his son, Stanley, who is headed for the electrical engineering course. Mr. Brown learned telegraphy in this college. This was his first visit since 1886.

ALUMNI NOTES.

Mrs. Stella (Hawkins) Gallup, '08, was a college visitor May 8, from Marysville.

Miss Retta Womer, '04, visited in Manhattan this week. Her home is in Smith county.

Dr. C. E. Bassler, '07, and Miss Jennie Carter were married May 8 at Harveyville, Kan.

Carl Irwin, '10, visited college friends in Manhattan Sunday. His home is northwest of Salina.

J. A. Conover, '98, has lately been appointed farm superintendent of the dairy farm of the U. S. Naval Academy at Annapolis, Md.

Mrs. Laura (Lyman) Weaver, '06, and daughter, Margaret, arrived in Manhattan, May 9, and will remain until after Commencement.

F. B. McKinnell, '08, spent Sunday in Manhattan. Mr. McKinnell is a traveling salesman for the International Harvester Company.

Joseph H. Montgomery, '07, is in Manhattan, called by the illness of his father. Mr. Montgomery is now in the animal husbandry association of the University of Minnesota.

While Albert Dickens, professor of horticulture, was in Hutchinson, this week, he visited Harold Pennington, '09. Mr. Pennington is doing excellent work in helping to eradicate the canker-worm and the codling-moth in Reno county orchards.

J. L. Pelham, '07, superintendent of the Underwood orchards, at Hutchinson, has been using the residuum of crude oil burned in the orchard fire pots, and the settling from the big oil tanks in his road building. Mr. Pelham introduced the road drag into his township of Reno county. He did so well that the township spent several thousand dollars in making sand clay roads.

Members of the class of '90 and other alumni have been enjoying themselves in Manhattan in the last week or ten days. W. L. Sanders, '90, of Mangonia, Fla., whose family, Hattie (Gale) Sanders, '89, and four children, are in this city—two of the children in college—came in a few days ago. H. N. Whitford, '90, now chief forester in Manila, arrived about the same time. Delpha (Hooper) Montgomery, '91, and Bessie (Perry) Harling received for these guests last Saturday night. Several old students were there. Mrs. Bertha (Kimball) Dickens, '90, entertained them, with others, at dinner Monday night. Mrs. Sanders entertained the crowd Tuesday night. The chief requirement was that every man should sing something. C. M. Breese, '87, and W. W. Hutto, '91, were the principal soloists. Mr. Sanders did well with the bass. In the old days he was one of a quartet.

STUDENT JUDGING CONTESTS.

The Agricultural Association is Making Valuable Plans.

Judging contests among students interested along agricultural lines will be held this term, according to the plans of the Agricultural Association. These contests will be open to all students; an entrance fee of twenty-five cents will be charged non-members.

Contests in agronomy, animal husbandry, and dairy classes will be held. On account of the lack of exhibits for judging, the horticulture contests will not be held until fall. Medals will be given to the winners of first place; two classes, at least, in horses; several in meat classes of cattle, hogs, and sheep; judging of wheat, corn, and forage crops; dairy cattle and butter-scoring; fruit judging and scoring—these are some of the plans of the association.

These contests are expected to arouse interest in the practicable side of the courses, and in the work of judging teams. The different teams sent out from the Kansas State Agricultural College have made fair records against Iowa, Missouri, Ontario, Nebraska, Illinois, and Wisconsin, but have not carried off enough first to satisfy the ambition of the Kansas Aggies to lead in these lines as well as in athletics.

A list of contests, with conditions and time of holding them, will be published in the next issue of THE KANSAS INDUSTRIALIST.

FROM ARMENIA THEY CAME.

The Career of Three Foreign Students After They Left College.

Three Armenians came to Kansas several years ago from their native country and entered the Kansas State Agricultural College. They remained here a year and did good work. K. K. Gregory, one of the students, visited the college recently. He is engaged in the importing business, selling Oriental rugs and French silk goods, with headquarters at Omaha. Mr. Adjemian, another of the students, went to Armenia after leaving the Kansas State Agricultural College. Later he was made minister of agriculture in the state of Adona, on the Gulf of Scanderun. The third, M. H. Torrosian, went Lincoln, Nebr., and entered the Lincoln Dental College. He is now practicing in Lincoln.

Seniors Wish A Change.

The seniors desire that President Waters or the deans give them their sheepskins Commencement day. At their last class meeting the seniors discussed the method used last year. It was voted to see if a different system could be used this year. The seating arrangements used at the Illinois University is the one that the seniors here desire. At that institution the seniors are seated at the side of the auditorium stage during the commencement address. At the close of this they file across in front of the faculty and, upon the recommendation of their dean, the members of the schools are granted their degrees by the president of the university. A similar method is used at Cornell University.

Dr. Sheldon's Address.

The Rev. Charles M. Sheldon, of Topeka, spoke to the students at the assembly hour Saturday morning. Doctor Sheldon's subject was, "The Essentials of Life." In his opinion, the first essentials are a right definition of life, and a right definition of God and man. To this he would add right care of the body, high ideals, a desire to be of service to the world, and the ability to choose the best things in life. There were two classes of people, Doctor Sheldon said: Those who get, and those who give.

Clean Every Day.

If windows are wiped off on the inside with a clean cloth every day they will not require washing nearly so often, as it is the inside, more than the outside, that catches the dust.—*Philadelphia Times*.

BEANS HAVE STYLES, TOO.

FASHIONS IN THE BACK-YARD GARDEN EVERY ONE SHOULD KNOW.

Why Not Save Your Seed from Year to Year, Adding an Occasional Reliable Variety from Some Undoubtedly Authentic Source?

You know beans, don't you? How did you know what variety to plant? Did you look over the list of five hundred varieties offered by the seedsmen and choose the one most nearly fitting your needs? And then your peas: The same question might be asked regarding this plant. The chances are you either saved your own seed for this spring or bought the variety that has been in the family for years. It will be interesting to watch for the first pods and see if you got that for which you asked.

There are fashions in beans, as in gowns. The chances are the old variety is no longer grown. It is kept on the list because there are a few calls for it, but when you get your seed under that name you will find you have a new variety. The seedsmen argue that they are sending something just as good, if not better. And it may happen, too, that when you order some new variety you will get the old one under the new name. This juggling of names is caused largely by the demand made on seedsmen by market gardeners for something new.

If the seedsmen is honest in his substitutions he can benefit you. He knows, or should know, what variety is best suited to your locality. What qualities, such as earliness, eating quality, productiveness, color, make it the most suitable. If he has been in the business long he can determine this from the number of complaints he has received from the various localities regarding certain varieties.

The varieties you now use may give satisfaction. If they do, save your own seed from the best plants. It is not a very great task. New varieties may be tried, and if found satisfactory you should keep their fruit for seed.

WILL USE IRRIGATION.

Prof. Jardine Makes an Inspection Trip to the Reformatory Farm.

The farm of the State Reformatory at Hutchinson, Kan., is to be irrigated. W. M. Jardine, professor of agronomy, went to Hutchinson last week to look over the possibilities of irrigating the farm. He believes much may be accomplished in that section of the country by irrigation. Although it would not be necessary to irrigate all season, much benefit would be derived during a dry spell.

Nearly thirty acres will be irrigated this season. The water will be pumped with a traction engine. This engine is used for other farm purposes, and also to run the syrup mill at the reformatory. The water will be pumped from streams and wells and conveyed in open ditches to the places desired.

There are one thousand acres in the reformatory farm—nearly six hundred of which is pasture land. The entire farm will be surveyed later and an irrigation plan made. This work will be under the direction of the agronomy department of the Kansas State Agricultural College.

Royal Purple Nearly Done.

The committee of seniors that has been working on the college annual all year has finished its work and the last part of the book is now in the hands of the printers. This year's book will be nearly the size of the other numbers of the Royal Purple series. There will be more than three hundred pages. The books will be distributed Commencement week. The committee has ordered one hundred extra copies in order to give the alumni who come back a chance to purchase one. The book this year will contain more views of the college than any preceding edition. These were made by the Teachnor Bartberger Engraving Company, of Kansas City. The Union Bank Note Company is doing the printing and presswork.

HOW TO CUT THE BILLS.

Mrs. Anna B. Scott, of the North American, Talked of Household Economics.

Conservation of self and of material in the home mean economy.

A home must be operated as systematically as any business if it is to succeed.

Promptness in the home is one of the chief attributes of the economical housekeeper.

Meat once a day, eggs once a day, and fruit three times a day—think it over—for \$5 a week. That's enough to eat.

The foregoing thoughts were picked out of a thirty-minute talk in assembly, Wednesday morning, by Mrs. Anna B. Scott, the kitchen economist of the Philadelphia *North American*. Mrs. Scott came down from Kansas City especially to address the students. She interested them, too, although every girl in the audience had been studying domestic science long enough to have many severely practical ideas of home economics. The talk certainly aroused interest in the saving side of cooking for a family, and the girls apparently enjoyed it. Mrs. Scott insisted upon system in the home, and, of course, that meant the kitchen. Her time was too limited to permit of anything very explicit.

Mrs. Scott was entertained at an informal luncheon in the Domestic Science Building at 12:30 o'clock. Nothing was prepared especially for the guest, Mrs. VanZile believing it better to have Mrs. Scott see the regular things served in the regular way. Here is the menu.

MENU
Lemon Ice
Chicken Croquettes Scalloped Potatoes
Bread Cabbage and Nut Salad
Butter Iced Tea
Strawberry Short Cake

This luncheon cost 20 cents a person. Mrs. H. J. Waters and Mrs. C. M. Brink were guests with Mrs. VanZile.

LIKE HAMBURG LOAF?

With Fried Apples It Is Odd and Good, Also.

Many persons do not know how delicious a well-prepared hamburg loaf is. Here is a menu using hamburg loaf with fried apples, the meal costing about sixty-five cents, with enough hamburg left for supper.

BREAKFAST
Sliced Oranges
Breakfast Bacon Eggs
Coffee Biscuits
DINNER
Lemon Ice
Baked Hamburg Fried Apples
Riced Potatoes Brown Gravy
Red Bean Salad
Butter Bread
Coffee Caramel Custard
SUPPER
Cold Sliced Hamburg French Fried Potatoes
Creamed Cauliflower Radishes
Pineapple Ice-cream Cake

Baked Hamburg.—1 lb. lean beef, $\frac{1}{4}$ tsp. pepper, 1 tsp. onion juice, 3 tbsp. bread crumbs, 1 tbsp. chopped parsley, 1 tsp. salt, 1 tsp. lemon juice, 1 well-beaten egg, 1 tbsp. butter or frying, small amount of water or milk.

Choose either round of beef, or chuck steak, being sure that it is fresh and well ground. If you prefer grinding it yourself, grind in a meat chopper. Shape into a compact loaf which may be pressed into a pan about three inches high, and wide. Sprinkle with bread crumbs and lay thin slices of bacon on top, or salt pork if desired. Bake in a roasting pan and serve hot. Any left over may be sliced cold and served.

Paint Brushes.

When the spring painting is finished soak the brushes in kerosene and work the paint well out, then wash in warm water, using plenty of soap, rinse in clear water, and let dry in a warm place. Brushes treated in this way can be put away as soft and pliable as when new.—*Denver Times*.

Ornate Stoles.

Scarfs or stoles to wear with lingerie frocks are being shown that are copied from the ecclesiastical stoles. They are very beautiful and ornate with much gold embroidery on black, blue, or white velvet.—*Philadelphia Times*.

TYPHOID ON THE FARMS.

EPIDEMICS ARE BY NO MEANS LIMITED TO THE CITIES.

Dr. Slack Gives Some Valuable Advice About This Disease—Flies and Contaminated Water Will Bear Careful Watching.

Typhoid generally is thought of as a disease of the cities. This is not the case, according to Francis H. Slack, professor of bacteriology at the Kansas State Agricultural College, who read an exceedingly interesting paper on typhoid, recently, before the Science Club. The number of cases in proportion to population is nearly twice as large in rural as in urban communities. The house-fly is to blame for much of this.

A contaminated water-supply probably causes more cases of typhoid than anything else, Professor Slack said, with poor milk a close second. These two agents do their most effective work in cities.

There are instances on record of persons who seem always to have typhoid germs with them, although healthy themselves. A case of walking typhoid exposes the entire community.

BUT "SWAT THE FLY."

Typhoid from impure milk has little danger for the farmer. Well water seldom is dangerous, unless the well covering or curbing allows surface drainage to get into the well. Ordinary care and cleanliness in handling milk and in procuring water should be sufficient precaution against typhoid infection.

Whatever else you do, don't fail to "swat the fly." Refuse around the barns and outbuildings should be screened. Application of unslacked lime will do no harm. Keep your food supply screened. Make the fly unwelcome. If he insists upon coming around, treat him to a dish of sweetened formaldehyde, or spread sticky fly paper for him.

In country homes where the mother is the nurse she often unconsciously is the means of spreading the disease among the members of the family. The typhoid germ is taken in through the mouth. Typhoid patients give off the germs, besides the ordinary ways, by the saliva and perspiration. The mother nurses the sick member of the family, and then prepares meals for the others. The safest plan is never to allow the nurse to have anything to do with the cooking or serving of meals.

Typhoid convalescents should not be permitted to handle food.

TYPHOID INOCULATION.

These points give a brief summary of the precautions suggested by Doctor Slack in his lecture. Besides a more detailed explanation of the why and wherefore of typhoid and typhoid preventive measures, Doctor Slack gave a short history of typhoid epidemics, and how they are supposed to have started. He gave also an account of the attempts to make a serum that will give immunity from the disease. The serum confers a fairly strong, immediate immunity, but its effects soon pass away. It seems to have no effect on one who has the disease. The use of typhoid serum as a preventive has met with marked success in the English, German, and American armies, the per cent of typhoid cases being reduced one half among the regiments inoculated. A greater susceptibility immediately after inoculation can be guarded against by using the serum. The soldiers of Uncle Sam along the Mexican border all have been inoculated against typhoid.

Concerning wide-spread vaccination among Americans, Doctor Slack says: "We have in the vaccine a most promising means of combating the disease. The people as a whole are opposed to any protection which necessitates pricking the skin. . . . If it were only a dose to be taken by the mouth, however bitter, they would take it thankfully and pay for the privilege. But prick the skin of a free-born American citizen! Never!! He would die first, and he often does."

HOW TO MAKE A FENCE.

EVERY FARMER SHOULD BE CAREFUL ABOUT THE WIRE HE BUYS.

Make It Hog Tight by Having the Heavier Wires at the Bottom—A Different Design is Necessary for Cattle.

Vertical or stay wires in a home-woven fence will rust, usually, before the line or bar wires. The stay wires are lighter and therefore carry a lighter zinc coating. It is advisable to buy wire in which the stay wires are as large as the line wires.

The kind or type of fence that is selected depends upon the use. In a hog-tight fence the heavier wires should be at the bottom, while a fence for cattle requires a different design. A general-purpose fence, fifty-eight inches high and containing twelve line wires, should cost about forty cents a rod if made of eleven-gauge bars and twelve-gauge stays. The same type of fence made of nine-gauge wire should cost sixty cents a rod. It is probable that the heavier type would outlast the lighter by many years, but the first cost is high. If a purchaser cannot afford to pay the higher price, he can in many cases make his fence just as efficient by buying an eight-wire fence forty-five inches high, made of nine-gauge wire, at forty cents a rod, and placing a barbed wire above it. If the field to be fenced does not require a hog-tight fence, it can be raised from the ground to get the desired height. A systematic inspection of wire fences showed that many rusted after the third year's service. In many cases these fences were made of twelve-gauge wire fifty-eight inches high, or ten-gauge wire fifty-two inches high. Used in a place where a six-gauge wire is thirty-five inches high, with an additional barbed wire above it, would have served the purpose.

IT WON'T RUST.

Wire of No. 9 gauge is recommended for all practicable purposes. The low carbon or mild steel is not so likely to rust and is more durable. It should not be made of a combination of hard and mild steel.

Wire will last much longer if painted. This can be done at the expense of one cent a rod. House or barn paint is not desirable for wire. Basic chrome green paint has been used successfully.

Use smaller gauge wire for poultry netting. This is manufactured in one of two ways: One is when the wire is galvanized after weaving the mesh and the other grade is made from wire that has been galvanized before weaving into meshes.

Much of the wire manufactured in the United States is not serviceable. Often, wire that should last ten to fifteen years will rust after the second or third year's use. Wire that was manufactured twenty or thirty years ago is more resistant to corrosion and of a better quality than that made to-day.

AS TO DURABILITY.

The lack of durability in wire is not entirely due to the manufacturer. The consumer and the middleman are also responsible. The manufacturer's problem is to get the proper quality of steel, the grade of zinc or spelter used in galvanizing, and the even distribution of the zinc coating. Much progress has been made recently along these lines, but the best method of galvanizing is still a mystery. The consumer and the middleman are to be blamed, indirectly, for the light zinc coating and the weight or gauge of the wire. The consumer demands lightness and apparent cheapness, and this leads up to the tendency to manufacture lighter wire. The middleman with limited warehouse facilities cannot carry in stock all sizes of wire. Consequently he orders wire that will meet the average demand, and the purchaser who desires to make a selection is limited in his choice and influenced by the salesman to take the lighter wire.

Lay a garment which has been scorched in ironing where the sun's rays will fall directly on it.

THE ATHLETIC FIELD FUND.

Here Is a List of Contributors Whose Help Was Important.

The new athletic field is now in use, with the electric line extended to it. The grand stand capacity probably is 3000. The bungalow at the old field was moved to the new home. It was due largely to the help of the alumni that the field was ready for the spring games. This is a list of those who have sent contributions to President Waters; the total is \$974.40:

J. O. Tulloss, '09.....	\$ 2 50
Orr O. Morrison, '08.....	25 00
Edmund R. Secrest, '02.....	20 00
Bessie Belle Little, '01.....	5 00
A. J. Cowles, '07.....	10 00
John Frost, '02.....	5 00
Franklin A. Adams, '09.....	25 00
F. B. Milliken, '09.....	10 00
N. M. Green, '07.....	5 00
Claude C. Cunningham, '03, and May (Griffith) Cunningham, '07.....	10 00
Winfred A. Dalton, '06.....	10 00
P. J. Meenan, '09.....	25 00
L. W. Waldraven, '00.....	5 00
Bertha Olson, '07.....	1 00
Jas. R. Coxen, '07.....	25 00
A. E. Oman, '00.....	15 00
Mrs. A. E. Axelson, '07.....	1 00
Chas. A. Scott, '01.....	10 00
Donald Foote, '09.....	20 00
Alma McRae, '06.....	10 00
Frank W. Dunn, '04.....	10 00
Arlie Wheeler, '06.....	10 00
Wm. L. Shelly, '09.....	5 00
Ernest L. Adams, '07.....	25 00
W. P. Terrell, '04.....	5 00
Lester A. Ramsey, '06.....	5 00
R. A. Carle, '05.....	5 00
F. A. Kiene, '06.....	25 00
T. N. Hill, '09.....	10 00
Webster Literary Society.....	144 40
Harry G. F. Oman, '07.....	10 00
O. A. Stevens, '07.....	15 00
W. R. Ballard, '05.....	5 00
H. A. Ireland, '07.....	20 00
Glick Fockele, '02.....	5 00
J. U. Higinbotham, '08.....	50 00
Mrs. Frank F. Huse, '00, and Helen K. Huse, '08.....	6 00
F. B. Morlan, '00.....	10 00
W. G. Tulloss, '09.....	5 00
Harrison E. Porter, '07.....	10 00
Geo. Wolf, '05.....	10 00
Victor L. Cory, '04.....	2 50
Amy Allen, '04.....	5 00
Jessie Allen, '08.....	5 00
E. S. Adams, '08.....	10 00
H. Umberger, '05.....	10 00
L. W. Lawson, '07.....	5 00
Harvey A. Burt, '05.....	5 00
May (Haus) Burt, '05.....	5 00
Alfred H. Baird, '07.....	10 00
Helen B. Thompson, '08.....	5 00
Frank C. Harris, '08.....	10 00
A. G. Phillips, '07.....	25 00
L. C. Alcher, '10.....	25 00
Matth Kirk, '10.....	5 00
H. N. Vinall, '03.....	15 00
Ada Rice, '95.....	5 00
Stella Ballard, '10.....	25 00
G. D. Noel, '09.....	10 00
F. B. Elliott, '07.....	5 00
K. S. A. C. Band.....	10 00
Roy M. Johnson, '10.....	25 00
E. H. Dearborn, '10.....	25 00
C. G. Elling, '04.....	50 00
Harlan Deaver, '10.....	20 00
H. C. Rushmore, '09.....	2 00
R. H. Brown, '08.....	25 00
Total.....	\$974 40

"RAG LINE" SAVED THE DAY.

How Two Kansas Boys Talked Through the Air.

Every farmhouse can be made a wireless station. This is not difficult, under the plan of two country boys, who wished for a telegraph line and did not have the money to build it. A telephone was considered, but the cost was too high.

A book from the school library settled the difficulty. The idea was to have a signal code. A pole was set near each house in sight of both boys. A small pulley at the top of the pole, a piece of small rope run through it, and banners of red, or white, and of black completed the equipment.

A code was worked out and the symbols multiplied by using them half-mast and at the top. Each color had a number. The boys spent all their spare time practicing reading. All the while their parents and neighbors joked about the "rag line," as they called it. Some time after this a large herd of cattle broke into a field and the "rag line" summoned help. The cattle were driven out before much damage was done, and no more jokes were heard about the "rag line." It was used by the older members of the families until a telephone was installed.

Largest Brick Production.

According to the United States Geological Survey, 9,791,870,000 common bricks were manufactured in the United States in 1909; also, 1,023,654,000 vitrified paving bricks and 816,164,000 front bricks, a total of 11,631,688,000. The value of all these bricks was \$78,232,920. This is the greatest number of bricks, with the highest value, ever produced in this country in any one year.

Tiny Tailormades.

Even the small maids of eleven and twelve have their tailormades, consisting of a semi-princess frock and a short box coat.—*Washington Herald*.

GRAPES EASY TO GROW.

EVERY FARMER IN KANSAS CAN HAVE A PROFITABLE VINEYARD.

Plant the Vines in a Warm, Open, Well-Drained Soil—Some Directions Which Should Bring Good Results.

Grapes can be grown for home use on practically every farm in Kansas. They are easy to cultivate and require no special knowledge on the part of the farmer.

Plant the vines in a warm, open soil, well drained, and fairly fertile after thoroughly pulverizing the surface and subsoil, as the roots of grapes are numerous and slender. This pulverization makes the plant-food in the soil more available, gives greater root development. In preparing the soil, plow the ground with a sub-soil plow in the same furrow. This leaves the surface soil warm and at the same time breaks up the subsoil. Unleached wood-ashes and well-composted manure mixed with the soil in the process of preparation, or as a top dressing, greatly improve the condition of the soil.

LAYERING THE GRAPES.

It is advisable for the farmer to buy his grape-vines from a reliable nurseryman. He should know something about propagating them by layering and by cuttings. Layering should be done in the spring. This process is carried out by bending the grape cane over and placing it in a shallow trench three inches deep and covering with earth after the shoots have grown a few inches. Tie the shoots to small stakes and keep the ground well cultivated during the growing season. In the following spring dig up the buried cane with its rooted plant at every joint, and cut the plants apart. Be careful in digging up the vine, so as not to injure the roots. Get the cuttings for propagation in the fall and keep through the winter in fresh garden soil. The cuttings should be one foot long and have a bud one half inch from the lower end, while the upper end should have a longer stem extending above the upper bud. Plant in a V-shaped trench and keep well cultivated during the summer. Plant the young vines eight feet apart, in rows the same distance apart, either in the spring or fall.

The young vines have only a single shoot and will need nothing more than a stake or a pole as a support during the first year. After the first year, permanent supports, such as buildings and arbor and canopy trellises, may be used.

HOW TO CUT BACK.

In the fall of the first year cut back the single shoot to within two feet of the ground. Allow only the two upper buds to grow the second year and train them as single shoots. These shoots are turned down and fastened to the lower wire of the trellis. This wire is of the same height as the vine. The third year the shoots that spring from these horizontal arms are trained upward and fastened to the wires of the trellis, which are one foot above one another. These shoots are usually six or eight in number.

In the fall of the third year every alternate upright cane is pruned down to a short spur, and the remaining canes are cut back even with the top wire of the trellis. The spurs will send out single shoots, and the canes that are left in pruning will bear fruit the following summer. In the fall of the fourth year the fruit-bearing shoots are cut off, and the shoots grown this same year will bear the fruit the next year. Pinch off all unnecessary buds, beginning in May and continuing through the summer.

In protecting the grapes from insect injuries, fungus diseases, and birds, a very successful way is to sack the grape clusters. Place the sack over the cluster soon after the blooming season is past. Be careful to have the sack pinned and folded about the neck of the cluster. Either Bordeaux mixture, made of fifty gallons of water, six pounds of copper sulphate, and

Contests for the Girls!

Why not have a part in the activities this year?

Can you make butter?

Can you bake?

Can you sew?

Can you mend?

Can you can?

This is the time to prove your ability.

You might be a winner—who knows?

How Does Your Garden Grow?

Perhaps you never have tried to grow anything.

Why not get into the annual contest for 1911?

Your institute officers or

your Home Economics

Club or the County Super-

intendent can tell you

all about the plan.

Fifty Loaves in Four Months!

Could you bake that much bread? Could you bake it better than any other girl in Kansas?

No first-prize winner in previous contests can compete in the same class this year.

Three Classes to be Entered in the Contests

The College recommends that committees have Class B for girls 10 to 14 years old; Class A, girls 15 to 20, and a "Special" class for girls 15 to 20 who have attended the State institute or a cooking or sewing school for one or two weeks. If you will be 15 by July 1, you may enter in Class A. THE COLLEGE INVITES YOUR CO-OPERATION IN THE WORK.

For information write the extension department or see your institute officers.

The Kansas State Agricultural College, MANHATTAN, KANSAS

four pounds of unslaked lime, or an ammoniacal solution of copper carbonate containing forty-five gallons of water, three pints of strong aqua ammonia, and five ounces of copper carbonate, can be used for the fungous diseases of the grape, such as the rots, mildews, and anthracnose.

HAVE A COOLING CLOSET.

And You Won't be Paying the Ice Man so Much.

Economize on your ice bill by putting a cooling closet in your kitchen window. This will serve the purpose of a refrigerator, except in very warm weather, and will shorten the ice season considerably. The food will be within easy reach when the window is opened.

This handy device is simple in construction and costs very little. It is a closet resting on the window sill and fitting into the place of the lower screen. It is held in place by a hook midway on each side.

The number of shelves depends upon the length of the window, three being the number commonly used. These are of ten- or twelve-inch boards. The sides may be made of boards or the shelves may be fastened together with narrow strips at the corners, and the sides and back covered with wire screen.

BEEF BREEDERS TO MEET.

Farmers Are Said to Need Information About This Great Industry.

A meeting of beef cattle breeders of Iowa is to be held at Des Moines this spring to form an organization to carry on the propaganda contemplated by the state legislature in its recent appropriation of \$7500 for the benefit of the beef cattle industry. It is expected that the work will be much like that which has been done for the dairy interests in the past, and will consist largely in ma-

king the farmers of the state better acquainted with the different beef breeds and with the merits of the beef breeds.

Iowa is not the only state that needs this sort of education. The ignorance of many farmers regarding the different breeds of cattle is surprising to people who are really acquainted with the cattle business. On the agricultural college cattle demonstration train through Southern Missouri this spring, the famous Holstein cow, Missouri Josephine, and a Hereford cow and calf, formed a part of the exhibits. Many a farmer asked the instructors if the Hereford cow were Josephine. At the state fairs—in any state—there is hardly a minute of the day in the cattle barns that the herdsmen are not asked to name the breed of their cattle. Surely, if even the name of the breed is unknown, the real merits of the cattle themselves are unknown.

Hereford breeders might well take this hint to themselves. Are there farmers in your own neighborhood who are not acquainted with the Hereford? Can you not do some effective missionary work in your own community?—*American Hereford Journal*.

Form a Land Company.

Nobuzo Kawai, '09, who has been a chemist and dairy expert with the Belle Springs Creamery Company at Salina, Kan., is to engage in horticulture and poultry raising. Mr. Kawai and W. J. Barnes, secretary of the Y. M. C. A. at Salina, have incorporated the Bayside Nursery and Development Company and have purchased land near Anahuac, Tex. They will grow oranges and figs. Mr. Kawai has studied at the Wisconsin Agricultural College and will attend the summer session of the Texas Agricultural College. He is an expert in orange growing.

THE KANSAS INDUSTRIALIST

Volume 37

Kansas State Agricultural College, Manhattan, Saturday, May 20, 1911

Number 33

WHEN THE LESSONS END

HERE'S THE PROGRAM FOR COMMENCEMENT AS NOW ARRANGED.

Of course the Alumni Will "Come Back;" a Church and Rural Life Conference; Class Play; a Base-ball Game.

When a thousand farmers gathered at the agricultural college, last winter, for the annual institute no meeting was more largely attended than that of the Church and Rural Life conference. The farmers and their families gave it more attention, in many cases, than they gave to meetings in which agriculture was discussed. The interest in these subjects having been proved to the satisfaction of the college authorities and leading churchmen, another conference has been arranged for Commencement week.

But there will be other attractions for Commencement week. The Church and Rural Life Conference is mighty important, but it is only a part of the week's activities. For one thing, there will be the annual return of the alumni. Many of them never miss a year. The Alumni Association will meet in the old chapel at 2 o'clock Wednesday afternoon, June 14. The faculty-alumni luncheon is one of the popular functions of the week.

The Choral Union concerts will be noteworthy events. Mendelssohn's oratorio "Elijah" will be sung Wednesday night, June 14. The visiting soloists and members of the music department will give a concert Wednesday afternoon. The college Orchestra and the Glee Club will take part in the afternoon performance. The Orchestra, directed by R. H. Brown, will play the accompaniment for the evening concert. Olof Valley, professor of music, is director of the Choral Union and also sings the bass solos. Harry Brown will play a violin solo at the matinée. Other soloists will be Mrs. Mabel Sharp-Herdien, soprano; John B. Miller, tenor, and Mrs. Grace Brown Slack, contralto.

Then there is the senior class play, "At the End of the Rainbow," for Tuesday night. The senior class plays always have made a hit with the audiences Commencement week. The program for Commencement week will be found on the fourth page.

ELECTED TO PHI BETA KAPPA.

Professor Beall Has Been Notified of a Recently Acquired Dignity.

L. H. Beall, assistant professor of English, has been notified of his election to the Phi Beta Kappa fraternity. There was no chapter of the Phi Beta Kappa at Dennison College, Granville, Ohio, where Mr. Beall was graduated in 1902. The Theta chapter of Ohio was organized there this year, and made to include some of the honor men of previous classes. The list of Phi Beta Kappa men on the faculty of the Kansas State Agricultural College includes President Waters, Dean Brink, J. W. Searson, associate professor of English, and A. E. White, assistant in mathematics.

WHEAT TESTS FOR PENN.

Professor Roberts Has Just Finished Several Interesting Wheat Determinations.

The department of botany in the Kansas State Agricultural College has just finished making a determination of the hardness of nine samples of wheat sent to Professor Roberts by W. H. MacIntyre, of the department of agronomy of the Pennsylvania State College.

The hardness is determined by the crushing test of air-dry samples of wheat kernels taken by means of a machine especially designed by Professor Roberts for this kind of work. It is found to give very accurate results in actual practice and enables

the hardness of different varieties of wheat to be expressed numerically. The wheat varieties sent by Professor MacIntyre are of the soft type of wheats commonly grown in Pennsylvania. They crush under a pressure of seven thousand to eight thousand grams. Turkey and Karkov and similar varieties do not crush under nine thousand to twelve thousand grams.

TEACHERS HARD TO GET.

Here's a List of the Girls Who Will Be Schoolmarm.

About seventy-five city school boards have asked the Kansas State Agricultural College for teachers of domestic science, this spring. A greater number of calls for teachers of agriculture and manual training have been received.

Some of the seniors who have accepted positions are: Domestic science and art: Georgia Canfield, Belleville; Hester Glover, Blue Rapids; Olga Raemer, Marysville; Claire Lewallen, Marion; Mabel Keats, Colby; Winnie Cowan, Holton; Florine Fate, Tonganoxie; Christine Heim, Lincoln; Blanche Ingersoll, Minneapolis; Alice Keith, Seneca; Winona Miller, Medicine Lodge; Mary Parsons, Wakeeney; Edna Pugh, Wathena; Georgia Randal, Fredonia; Elsie Rogler, Cottonwood Falls; Matah Schaeffer, Phillipsburg; Florence Wyland, Belle Plaine; Carrie Gates, Altamont; Irene Case, Lyons; Esther Christensen, Meade; Mabel Sperry, Neodesha.

Agriculture and Manual Training: P. E. McNall, Minneapolis; George Kellogg and Tom Parker, Cottonwood Falls; J. E. McDowell, Blue Rapids; H. E. Skinner, Columbus; Frank McClure, Nickerson; D. G. Roth, Moundridge; M. C. Stromire, Fredonia; V. V. Detwiler, Chapman; Jay Kerr, Goodwell, Okla.

PICNICS NOT LIKE OTHERS.

These Students Charter Special Trains for Their Good Times.

There is a fad at the Kansas State Agricultural College. The dinky hat with the bright ribbon; the microscopic cap; the triple-reefed trousers—none of these had any perceptible effect on the Aggies. But the Webster Literary Society chartered a special train, May 12, for the annual Web.-Euro. spring outing. The next Wednesday the seniors procured an engine, baggage car, and four coaches and went to Ft. Riley. The train left Manhattan at 8:15 a. m. and returned at 10:30 p. m. The '11's took along their own dining-car and service. Visits to the many interesting points at the fort, a baseball game with the artillery team, which the seniors won, 4 to 2, and a polo-match between Ft. Riley and Junction City helped to pass away the time.

Making a New Tunnel.

Excavation is being made for the tunnel that is to carry the heat pipes to the Nichols Gymnasium. This tunnel will connect with that which leads from the Domestic Science building to the Auditorium. The light wires will also go through this tunnel.

One Student's Work.

Howard Strickland, a student in animal husbandry last year, has just finished putting in 100 acres of corn. He has fine bottom land just east of Junction City. He intends to feed hogs.

Mending Linen.

Hemstitched tablecloths and napkins can be nicely mended when the hem-stitching breaks by fagoting the edges together with strong thread. This will wear as long as the article.—*Columbus Citizen.*

SEE THE MAIL CARRIER!

A BIG CHANGE HAS COME IN THIS RURAL BUSINESS.

No Longer Does the Government's Cheerful Representative Loiter Along the Country Roads—the Influence of Good Company.

No, children, the man in the motor-car is not a real estate agent or an insurance solicitor. He is a rural mail carrier. See! He does not flounder around as he did a few years ago with his old gray horse. He spins up to the mail box, puts in it the catalogue from the mail-order house, the advertisement of a self-acting combination washing machine, churn, wood-sawyer, and electric light plant for \$92.56, and is gone before father can catch him for a few minutes' chat about the condition of the roads.

JUST AS SPEEDY.

Wonderful, isn't it? Only a few years ago the world would have

nearly every state east of the Mississippi. This carrot grows from one to three feet high and is branched. The leaves are similar to the tame carrot. The flowers are white, usually, with a small purple flower in the center. They bloom from June to September. The seeds are cup-shaped, in clusters, and are covered with a small, prickly or burry covering. They attach themselves readily to stock and are scattered in this fashion.

A REAL COOK-BOOK.

Recipes from the Domestic Science Department to be Published.

A handy book on cookery, brimful of the choicest recipes, and other information for cooks, is to be published by the domestic science department at the Kansas State Agricultural College.

Hundreds of requests are received every year by that department for its cook-book, but the writers of all these requests have been disappointed. All recipes have been dictated to students

REPAIRS ONLY 5 CENTS.

IN TWENTY-TWO MONTHS THAT'S ALL THIS GASOLINE ENGINE COST.

It Furnished Power for the Dairy, to Pump the Water, for a Disc Sharpener, and a Washing Machine—Original Cost, \$165.

Five cents in twenty-two months. That is what one Kansas farmer has paid for repairs on his gasoline engine. Three cents a day for gasoline and \$3 for batteries, making the total cost of running less than \$23 for the twenty-two months.

During this time the engine has separated the milk and churned the cream for 4200 pounds of butter, pumped the water for use in the house and milk house and for thirty head of horses and cattle and forty head of hogs. It has also furnished power for a disc sharpener used for two farms, and part of the time for the washing machine.

AND IT COST \$165!

This engine is owned by Marshall Arnott, of Blue Rapids, Kan. It is a three-horsepower, upright "Stover," weighing 1070 pounds. The original cost was \$165.

The building in which the engine is located is of cement blocks, twelve by sixteen feet. The floor is of cement, also the water-tank, two by five by two feet, which is set eight inches below the floor. The floor is sloped to a waste pipe, making it easy to clean. There is a line shaft running the full length of the building directly over the separator and churn and out to the pump. The engine is located on an eighteen-inch bed of concrete bolts running through this for fastening.

The building complete cost \$180, \$100 of this being for cement work. The total cost of the building, engine, separator, churn, pump, belting, line shaft, pulleys, and other details were \$460.

IT DOES THE WORK.

The line shaft is a piece of one-inch gas pipe, fitted with boxing from an old thresher. The separator is fitted with a friction clutch which regulates the speed in starting, and also helps to maintain an even motion while running.

A cupboard is in one corner of the room and a work table in front of the window, so that all work with the butter can be done right there.

Mr. Arnott is planning to attach the engine to a grindstone, feed grinder, wood saw, emery wheel, and butter worker.

OVER THE BOUNDING BLUE.

F. C. Harris is to Sail June 10 for a Trip Abroad.

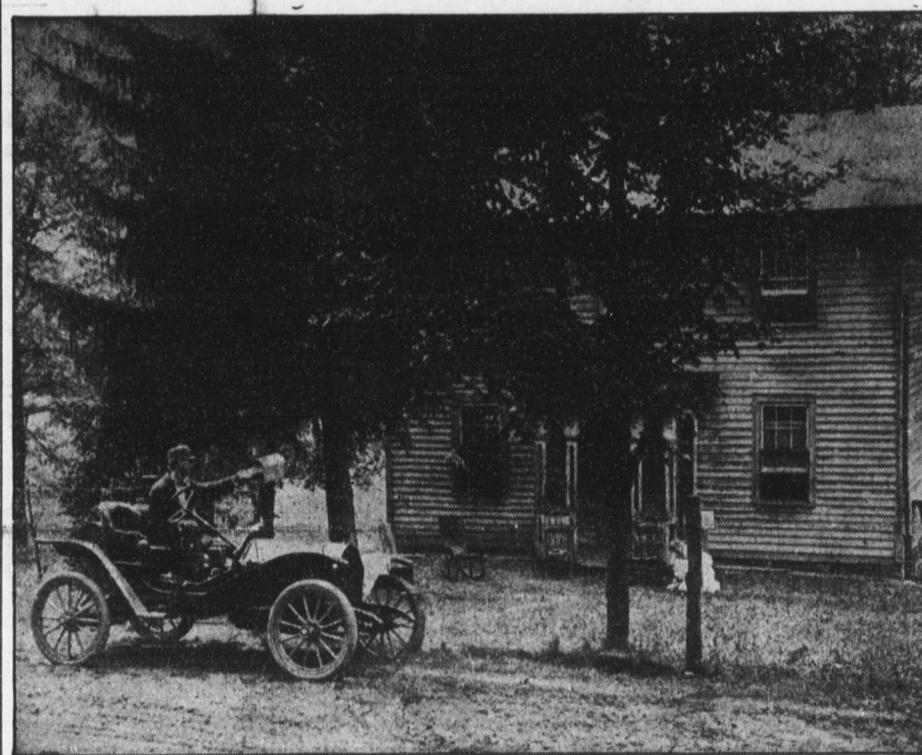
Frank C. Harris, assistant in architecture and drawing, will spend his summer vacation in Europe. He expects to sail from New York City June 10 and will land at Naples, where he will remain for some time, then going to Rome and Venice. He will visit Switzerland and will be in Germany for ten days. He will see the Dutch countries and France and England. He will spend most of his time in the art centers. He will be gone three months.

Attention, Alumni!

All ex-baseball men who are planning to attend Commencement exercises should write E. N. Rodell, general manager of athletics, at the college, so he can give them a place on the alumni team. This team is to play the Aggies Commencement afternoon.

Gave Commencement Address.

J. E. Kammeyer, professor of economics and public speaking, gave the commencement address at the Sedgwick County High School yesterday.



A Riley County Rural Mail Carrier.

laughed if you prophesied that some day the rural mail carriers would be scooting about over the country in motor-cars. An old buckboard or rattletrap buggy was pretty good—either is acceptable right now in many counties. But here you see him with just as much speed as a city requires delivering the mail.

Ever stop to think, children, that a rural mail route increases the value of a farm? Ever consider that the better the roads are the better and quicker is the mail delivery? Doesn't that make the farm more valuable?

It surely does.

Doesn't that put it just that much nearer to the city—rapid transit—and isn't closeness to the city the thing that makes a bit of land particularly attractive?

It surely is, children.

WATCH THE CARRIER.

So watch the rural mail carrier. Notice, please, he doesn't have the care-worn look he used to have. That's because he goes faster and gets more time at home. The mail carrier loves his home. He must love it or he'd get in trouble with somebody.

The carrier shown in the act of slipping a piece of mail into the box is an important part of rural life in Riley county, Kansas, in which is the state agricultural college—which goes to show the power of good company and association.

NOT MRS. SCOTT'S KIND.

This Is a Wild Carrot that Has Flowers—Don't Eat It.

Kansas is fortunate in being almost free from one of the worst weed pests, "The wild carrot." It is found in

and only kept in note-books for future use.

This cook-book is to be a common-sense one. Mrs. Mary Pierce Van Zile, professor of domestic science, is the author, with all the instructors in the department as contributors. Only recipes that have been tried and approved in the school work will be printed in this book.

Besides the regular recipes used in the four years' course, the book will contain general directions for cooking meats, pastries, soups, delicacies, and all other kinds of foods. The principles of cooking, the structure of food, and how to buy food will be discussed briefly. Every kind of food is told of in separate chapters. One will be on "meats," with beef, veal, pork, mutton, poultry, and fish as subdivisions. General directions on preparation will be given. Then the recipes follow:

The book will be used at the department beginning with the next fall term of school. At that time these cookbooks will be on sale to anyone. Students may buy them through the department at cost. To others they will be sold at a reasonable profit. The book will be printed in the school of printing in Kedzie Hall.

Fine for the Roads.

The pile of chip rock in front of the gymnasium, which came from the stone used in building, is to be run through a crusher and put to the roads on the campus.

Kind to Their Neighbors.

R. K. Nabours, instructor in zoölogy, has just been granted the degree of doctor of philosophy by the University of Chicago.

THE KANSAS INDUSTRIALIST

Issued weekly during the college year by the Kansas State Agricultural College, Manhattan, Kansas.

PRES. H. J. WATERS Editor-in-chief
PROF. C. J. DILLON Managing Editor
DR. J. D. WALTERS Local Editor

Except for contributions from officers of the college or members of the faculty, the articles in THE KANSAS INDUSTRIALIST are written by students in the department of industrial journalism, under the direction of Prof. Charles Dillon.

The typesetting and other mechanical work is by students in the school of printing, of which J. D. Rickman is superintendent. Both these departments are in Kedzie Hall.

Newspapers and other publications are invited to use the contents of the paper freely without credit.

The increasing demand for THE KANSAS INDUSTRIALIST makes it necessary to insist upon the payment of the regular subscription price, 50 cents a year, invariably in advance. No commission is paid any one for subscriptions, and no advertisements are accepted. The paper is sent free only to the alumni, to officers of the state, and members of the legislature. This rule will not be violated.

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SATURDAY, MAY 20, 1911

THE SCIENCE OF BUYING.

Many of you, doubtless, have heard the story of the farmer who, upon seeing his first giraffe, exclaimed, sneeringly, "Huh, they ain't no sich animal!" That was the spirit many women displayed when Mrs. Anna B. Scott, "Kitchen Economist" of the Philadelphia *North American*, came along the road with a few helpful suggestions as to saving money in buying. This was to be expected. If Mrs. Scott had lectured on "How a Man May Dress Well for \$18.65 a Year," the husbands would have reared back and barked like a pack of coyotes in Kearney county. Two thirds the editors and reporters responsible for the oodles of publicity Mrs. Scott received knew, in their hearts, that nearly all women—let us say *nearly all*, for the sake of peace—earnestly try to feed the family as cheaply as possible. But it is characteristic of many men that they who howl loudest for economy put up the most noiseless hullabaloo if things on the table are a trifle skimpy. The virtue in this argument is not all with the men; not by a long, long way.

But the wives have much to answer for. Obviously a woman should not be expected to buy only three cents' worth of flour—though many have little more than that to spend (long continued applause)—but she can and should try to figure out dozens of ways to cut down expenses. Mrs. Scott was talking about things she had tried during forty years' experience in the kitchen. She had a lot of tricks that thousands of men would resent in the preparation of their meals, but on the whole she had a system that meant the saving of money and, at the same time, good, appetizing food. She knew her business, and after we get through joking about carrots and onions and this and that, we may as well acknowledge that if more housewives studied this woman's methods more thought would be used in buying supplies.

Two-thirds of the waste in household buying is said to be due to telephone ordering and carelessness of hired help. If this be true, and some women admit it, the way out is clear. Either go to the store and order or decline to receive an article below the standard; keep a set of scales. Take the maid into your confidence; tell her there is no truth in the story that your uncle has left you one fourth million dollars and, therefore, you desire her to hold down to two pounds of butter a week, quit throwing away one half the food, and try to cook as if in the kitchen of just a moderately wealthy American citizen who has a few thoughts not connected with his stomach. You can do a lot by talking to a girl. But if you fail in this, there's one more remedy. You all know it, good people.

REPORTER OR CORRESPONDENT?

Just why some persons evade the word "Reporter" is past understanding. The several especially irritating reasons for this protest have been recorded within a few days. Men who have, by good work, loyalty, punctuality, truthfulness, and strict adher-

ence to high ideals come up from the bottom to positions with attractive salaries, now refer to their earlier years as "When I was on the So-and-So," or "I was Correspondent for the *Daily Bluff*," or "I was a Special Writer," "I was Motor Car Editor," or "Club Editor" or some other freak job. Anything to keep from disclosing the horrible truth that once upon a time they were Reporters.

Why? Are reporters social pariahs? Not if they base their conduct upon proper lines. A good reporter is a rare work of God. There are all kinds of reporters, but the one that can get and respect the confidence of the community's important business men; the one that can be depended upon to show up on time after a dinner of the Pink Tea Press Club; who proves in his personal appearance a regard for the dignity of his calling; who doesn't care a rap whether it is midnight or 4 o'clock in the morning if only a good story is in sight—a story not obtained by key-hole methods—that is the sort of reporter worth while. The man who is afraid to say he is a reporter is a weak member of the staff.

Once upon a time a Certain Poor Man believed he was next in line for a Certain Place on the paper. The head of the department nominated him for the coveted job. "No," said the owner. "We can get plenty of men for that place; but there are few Good Reporters."

The Good Reporter was dismayed. "What's the use?" he inquired of the usual crowd at luncheon. But he lived through it, and in time believed himself eligible for another Certain Place. Before he had a chance to see about it he was informed that it was the intention to keep him "On the street." It was once more remarked, for his consolation, that Good Reporters were scarce. "If you had that job," he was told, "it wouldn't be long until business men would be asking what had become of you. The street for yours."

Did that man go around telling the world that he was Thirty-second Assistant City Editor or Special Writer or Puzzle Editor? Not he. He decided that he was such a Good Reporter that he'd tell about that—and he did; and he got another job. Funny, wasn't it? And all through being a Good Reporter. Don't forget that, you Correspondents and Special Writers and Motor Car Editors. Don't be ashamed to say you were a Reporter away back there in your youth when the paper gave you \$10 a week, and lost money at it.

TEACH THE BOYS TO COOK.

Every boy, says the Los Angeles *Herald*, should know how to cook. Mrs. Anna B. Scott, of the Philadelphia *North American*, said the same thing in her chapel talk at the Kansas State Agricultural College last week. A lot of the boys thought it was a fine joke, but they quit grinning when they saw President Waters, and other persons of good sense, applauding the suggestion.

Apparently, says the *Herald*, few boys believe it is important to know how to cook. But if a boy is going camping it is desirable that he understand the simpler methods, at least, of preparing food. It is not enough to be able to fry fish and to boil eggs and potatoes. Some member of the party must have a wider knowledge; and in nine cases out of ten it is the boy who does have it that becomes the most successful woodsman.

The boy's mother or sister will be glad to give him the necessary lessons. Breadmaking—especially cornbread—should be the subject of the first half-dozen. The boy learns to wash and peel potatoes, and to superintend the baking or boiling of them.

The second course of lessons should have to do with preparing meats, baked, broiled, and boiled, and the making of stews and soups. When a boy has become familiar with these processes, it will be but a short time before he is ready to get a meal without assistance.

The instruction, of which this is a bare outline, should be very different from that given to a girl, for it is not necessary—possibly not desirable—

A GOLDEN TEXT.

And it shall come to pass that whosoever shall call on the name of the Lord shall be saved.—The Acts, 2:21.

that a boy strive to be an expert in the culinary art. With the fundamentals mastered, however, it will be possible for him to enlarge his scope of work when necessity for doing so arises, while such knowledge as is his, as the result of his home training, will make him of vast assistance in the home and a valuable member of camping parties.

ASSOCIATE FARMS?

Associate farms are beginning to attract attention. An associate farm might be planned by several college graduates. For instance, if four graduates of the Kansas State Agricultural College would unite and obtain a section of land, far more could be accomplished in proportion than could be done by only one man. If there were two graduates in animal husbandry they could do more work along those lines, giving grain raising to two graduates in agronomy. This would

MORE ABOUT WASTE.

Many farmers who are experts in productive farm labor fail to get maximum profits because they slight those things that are destructive. There are many farmers who believe that if they get only a two-thirds stand of corn it will not pay to replant. Suppose that with a two-thirds stand you can grow thirty bushels to the acre. By replanting with good seed you could get nine tenths of a perfect stand, and that would yield forty bushels an acre. With corn at fifty cents a bushel—a fair market price—every acre would yield \$5 more in one season. The cost of replanting is about \$1.50 an acre. The profit of replanting is then \$3.50 an acre. On fifty acres it would amount to \$175. Yet many farmers are satisfied with a two-thirds stand.

Suppose your family cow gives milk that tests very low. Does it pay to keep her? It costs just as much to keep her as it does to keep a good cow, and it is just as much work to milk her. The poor-milk cow may be worth just as much on the market as the good cow. Yet how many families sell their poor cows and buy good ones?

During the winter every farmer has an excellent opportunity to use all the

A Compliment from "Collier's."

Teaching Journalism.

Newspaper English, which has been more reviled for its flaws than thanked for its common virtues of clearness and interest, has found in the Kansas State Agricultural College a set of champions. "Industrial Journalism" is a group of courses taught by a corps of practical writers who in a season's trial of the plan have won many friends among the Kansas editors, whose judgment in most instances is grounded on well-weighed evidence. THE KANSAS INDUSTRIALIST, the College paper which serves for laboratory work, is uncommonly efficient. Among the courses are "Writing for Farm and City Papers," "Gathering the News," "Newspaper Law and Ethics." A little booklet from the School of Printing, which talks about brevity and force, and itself illustrates them, is another contribution to the scant literature concerning newspaper making. This paragraph by J. T. Willard, dean of science and professor of chemistry, is from the introduction in explanation of the reason for industrial journalism:

Printed knowledge becomes effective only as it is read, and to be read in this day it must stand out from the great mass of other matter, and gain the attention and hold the interest of the reader. To do this its points must be sharp and easily seen, and the style must be attractive. On the other hand, if the presentation is not essentially true, the more attractive it is the worse it is; the greater the harm that follows its reading.

A good philosophy. Charles Dillon, professor in charge of the courses, was formerly assistant city editor of the Kansas City *Star*. He is the right man for the place, and the success of courses in journalism, as in any other topic, depends very largely on the man at the head.—*Collier's Weekly*.

be true scientific farming, each man operating his special branch. This would correspond to the plan of operating cities by commission government.

Of course, the work would be divided equally, and at times the animal husbandry specialists would be compelled to work the plow and binder, yet the direction of this work would not be their share.

By such an associated plan one set of improvements could do for four farms. Several distinct farm industries could be carried on scientifically, while otherwise only one could be done so successfully. The net income would belong to the association. Every member would be paid a monthly income. The net income would be either placed back on the farm, in improvements, used in purchasing more land, or prorated among the members. Such a plan would do away, to a marked degree, with the labor problem. Four men could tend a section far easier than one could operate a quarter-section.

In controlling tuberculosis, one farmer could take care of the diseased cows of his neighbors, at his place, giving the others his cows to keep. Thus the well cows would be protected against infection.

It is not only the graduates of an agricultural college who can make the associated farm a success. If the farmers of any community desire better and easier farm management, an association could be formed giving to every man the growing of one crop.

straw, the stalks of the corn fodder, and all the other refuse hay, in the production of manure. If this is done the farmer is turning absolute waste into profit. If it is not done it necessitates the purchase of fertilizer. Did you ever stop to think how many straw stacks are burned every year?

VISIT THE SCHOOLS.

Farm women should visit the schools more frequently. They ought to know what their sons and daughters are doing. If they visit the schools, the teachers will know they are interested in its welfare. They will gain the confidence of the teachers. It will create, also, an interest in the school work for the children. Take your little boy by the hand and go to school with him. It will make him study hard for a whole week. Too many women welcome school as a place to which to send their children to be rid of them. Occasionally some smart boy knows this, too. Maybe your boy or girl is wise.

Talk more to the teacher. Do not ask him or her why Johnny did not make so good a grade as some of the other pupils, or reprove the teacher for punishing him, for you probably knew at the time that he needed it. But, instead, inquire about the teacher's work, how he or she likes it. Take a personal interest in the teacher. Any woman—or man—who teaches children needs friends.

L. C.

No personal considerations should stand in the way of performing a duty.—*Ulysses S. Grant*.

The Days Gone By.

O the days gone by! O the days gone by! The apples in the orchard, and the pathway through the rye; The chirrup of the robin, and the whistle of the quail As he piped across the meadows sweet as any nightingale; When the bloom was on the clover, and the blue was in the sky, And my happy heart brimmed over in the days gone by.

In the days gone by, when my naked feet were tripped By the honeysuckle tangles where the water lilies dripped, And the ripples of the river lipped the moss along the brink Where the placid-eyed and lazy-footed cattle came to drink, And the tilting snipe stood fearless of the truant's wayward cry And the splashing of the swimmer, in the days gone by.

—James Whitcomb Riley.

SUNFLOWERS.

How dirty the straw hats are, this time of year!

In most cities the playgrounds are for the children.

Be slow in choosing a friend, slower in changing.—Franklin.

Anyway, Mrs. Scott made a few of them think. And that was a novelty.

The Saturday Night Club, of Topeka, seems to be a fine place to say things you've been saving for a year.

Agnes.—You are mistaken. "Bordeaux mixture" does not refer to wine or the recent champagne riots. Silly.

War, someone once said, is an educator. But how about the spelling of the names in this Mexican disturbance?

The person who could look at the fields and the gardens these days and doubt the cause of it would be a queer creature.

The queerest thing about Commencement week, from the layman's viewpoint, is the fact that it is, really, the end of things.

Did some one leave out a comma or forget to cross a "t" that Justice Harlan could not agree on the Standard Oil decision?

Senator O'Gorman doesn't have to invite anyone, anyway, when he wants to have a picnic. Have you seen the picture of his family?

John Temple Graves is "reporting" again. As Caesar once said while waiting for the train, it's mighty queer what some great men do.

Do you ever hear men, young or old, arguing about what they are to wear, or what some other man wears—particularly in Commencement week, for instance?

If it isn't too personal, will someone please say why a butterfly about which poems have been written becomes an army worm when it enters southeast Kansas?

Some persons have a lot of fine theories about managing children. Men and women who own none or neglect those they have usually carry a full line of advice.

The chief stockholders of the Standard Oil Company are to meet in New York within a few days. John D. Rockefeller is to deliver the valedictory. The police have been notified.

So the Standard Oil Company, after all, really is a trust! And the poor, little old American Tobacco Company, too! Now—ah—how about the Steel Trust and the Colorado Fuel and Iron Company and the Salvation Army and others?

There are a few things no printer can be induced to do. And then, again, sometimes it is the "intelligent" copy reader. For instance: The word "discolating" was used in this paper, last week, in a story telling how to kill chickens. You all know what happened to that word when it reached the city papers.

The Topeka *Journal* printed a story a few days ago telling of a family whose combined membership age was 738 years. The Kansas City *Star* had one the same day; but its combined ages were only 409 years. Why not say, "Placed head to foot the members of these families would reach across Kansas and—etc?"

LOCAL NOTES.

The senior ball team defeated the Fort Riley team Wednesday 4 to 2. William Jardine, professor of agronomy, went to Salina Tuesday on institute work.

Practice for the junior farce has begun. The farce probably will be given at the junior-senior banquet.

The Reno county club went on a picnic to Eureka Lake Monday. Twenty persons took the outing.

The ball team of the junior class went to Clay Center Tuesday. It won from the Clay Center Highs 9 to 5.

Dean Brink spoke Tuesday morning in chapel on "The Tercentenary of the King James Version of the Bible."

Mrs. J. T. Willard entertained the members of the Y. W. C. A. cabinet and advisory board, Monday afternoon.

Samuel E. Thackeray, a former student, visited college friends and relatives recently. His home is in Kansas City.

ALUMNI NOTES.

Charles A. Scott, '01, is building a home on his farm in Pottawatomie county.

L. C. Aicher, '10, will be a Commencement visitor at Manhattan this year. He is carrying on experiments at the southern Idaho experiment station.

Albert Dickens, '93, professor of horticulture at the Kansas State Agricultural College, delivered a commencement address at Colony, Kan., last Tuesday.

Frank E. Balmer, '05, who has been for two years director of the consolidated schools of Lewiston, Minn., has been elected to a similar position in a school in Wisconsin at a salary of \$2000.

Miss Lottie Crawford, '02, a graduate in domestic science, who has been teaching in the University of Wyoming, has been appointed to a similar position with Hollywood College, Los Angeles, Cal.

Word has been received of the death of the seven-months-old son of Mr. and Mrs. J. F. Terrass, of Alma. Mrs. Terrass, formerly Miss Pauline Wetzig, was graduated from the Kansas State Agricultural College in '08.

THE ALUMNI PLANS.

All the Faculty and the Class of 1911 Are Invited.

The annual alumni meeting will be held Thursday, June 15. The old system of a banquet and an alumni speaker every three years has been abandoned.

The alumni program proper begins with the faculty-alumni banquet given after the graduation exercises. All members of the faculty, and alumni, including the class of 1911, are invited. It is probable that particular friends of alumni, as husbands or wives, may be allowed to attend, since the banquet will be held in Nichols Gymnasium, giving plenty of room. Of course these persons must pay. Return cards will be sent out soon to try to get an estimate of those planning to attend.

Between the courses of the banquet, the toastmaster, President Waters, will call for impromptu speeches and toasts. The banquet will be over in time for the military program in the afternoon.

In the evening, an open meeting will be held somewhere on the campus. This is particularly for alumni, but all the members of the faculty, old members of the faculty, students, old students, people of Manhattan, and all interested in the Kansas State Agricultural College not only are invited but are urged to attend. There will be no special program, but only an informal gathering of friends of the college.

The plans of the alumni include this general gathering every year. Besides this, it is hoped to have a special meeting of the classes every five years. That is, this year the classes of 1911, 1906, 1901, 1896, 1891, 1886, 1881, 1876, and 1871 will meet. The classes of 1912, 1907, 1902, 1897, 1892, 1887, 1882, 1877, 1872, and 1867 will meet next year. This is to be continued until the classes that meet this year will meet again in 1916. All classes should have a secretary to notify every member of their class when their year for meeting will be.

WHY THEY MISSPELLED WORDS.

Professor Beall contributes some interesting data about the contest.

A study of the list of words misspelled in the recent intersociety contests brings to light several very interesting points. It is clear that many of the contestants were entirely unused to the sound of their own voices; they were scared so badly that they left out whole syllables of words that they were thoroughly familiar with; they put in extra letters that made their spelling sound absolutely ridiculous, and they transposed letters in a way that would have brought the blush to the cheek of any fifth-grade child. In all, eighteen per cent of the words missed were missed because of the excitement of the occasion.

A second reason for the misspelling is more serious and goes to the very root of much of the difficulty that Americans find with spelling. No less than twenty-four per cent of the words missed were missed because they had been mispronounced so persistently by the spellers that they either failed to understand the word when it was pronounced correctly for them, or they spelled it as they had always pronounced it, therefore incorrectly. In the case of the word *mischiefous*, for example, the student first asked to have the word re-pronounced and then proceeded to spell and pronounce it *mischeivous*.

Four per cent of the words given were missed because the ones to whom they were given were entirely unfamiliar with them. Do you recognize the following: *rasuma*, *chympansy*, *aretic*, *joiced*?

Fifty-four per cent of the words given were missed because the ones attempting to spell them, although familiar with them, were not able to spell them correctly, partly because they were not in the habit of spelling them correctly, and partly because they hesitated. Spelling is just as much a habit as expression, at least so far as the English language is concerned. William Trufant Foster says that in spelling "He who hesitates is lost." Certain it is that if one stops to think whether it is *believe* or *believe*, *seize* or *siese*, he is more than likely to get it wrong.

A classification of the fifty-four per cent just mentioned shows that fourteen per cent of the total number missed were missed because of doubling or failing to double a consonant; five per cent because of adding extra letters; five per cent because of the omission of silent letters, as in *reumatism*; six per cent because of the confusion of words with other words sounding much like them. Sixteen per cent were missed because of transposition of letters, as in *villian*.

An interesting class of words was those missed because the speller attempted to spell them phonetically—and succeeded—as in *sorgum*, *sliferous*, and *hydrafobis*. Eight per cent of the words missed were spelled correctly according to phonetic principles. This, taken with the fact that there are not and cannot be any adequate rules for the spelling of most English words, would seem to indicate that there is a field for the "efficiency" experts in the matter of spelling. L. H. B.

Proud of His Alma Mater.

Here is part of a letter received, this week, from George E. Stoker, '90, now in San Francisco. His residence address is 2733 Alcatraz Avenue, Berkeley, Cal.:

I did not come to San Francisco because the college had no other alumnus in the legal profession here, but on account of other good and sufficient reasons. However, I take pleasure, whenever opportunity affords, to refer with pleasure to the fact that I received my best training within the walls of the Kansas State Agricultural College, and that I can now subscribe myself an alumnus of twenty-one years standing.

THE HORSE OF ALL WORK

IT SHOULD BE A DRAFT ANIMAL, PROFESSOR McCAMPBELL SAYS.

No More Expense to Feed This Kind Than for a Small Horse—What Actual Experience Has Proved True.

Is there an all-purpose horse? According to Wilber McCampbell, of the animal husbandry department of the Kansas State Agricultural College, there is not. There is no market demand for such a horse. A horse for all purposes must be small enough for a buggy, yet heavy enough to use for draft purposes. This attempt generally results in a medium-sized animal that is too light for the heavy work frequently required on the farm. A medium-sized horse frequently will pull as much as a larger animal but, not having the weight, he must do it on nerve and muscle. This can be done for a while, but in time such work begins to tell and the smaller horse wears out before the heavier one.

Many farmers believe the upkeep of a small horse doing the work of a draft horse is less than that of the heavier one. Experiments have shown that a smaller horse will, in a year, consume as much feed as the heavier one. At the same time the work will tell more heavily upon him.

A farmer in western Kansas tried a number of cross-breeds, but in every case learned that some of the good qualities of every line were lost, and at last gave up the idea of producing one horse for every purpose. He is now breeding draft horses. He keeps a span of driving horses for buggy use, but is getting more satisfaction and money from the heavy horses he now produces than under his old system.

The Why of Bacon.

It is not mere accident that bacon is a Norman-French word, while the word *hog* is Saxon, nor that such words as *pork*, *beef*, *mutton*, *veal*, and *venison* are French, while such words as *swine*, *cow*, *sheep*, *calf*, and *deer* are Saxon. In the fact that the names of animals used for food purposes are nearly all Saxon, while the names of the corresponding meats are nearly all French, is contained the story of the humiliation of a proud and independent race. When, in the fifteenth century, William the Norman and his hosts crossed the English Channel and defeated the Saxons at Hastings, the former became the lords of the land, while the latter became their vassals, keeping their game preserves, tilling their lands, and tending their flocks and herds. Thus the Saxons came to think of animals usually as on the hoof and scarcely ever as meat for the table. The Normans never thought of them except as meat dressed for the table. Hence, when the races forgot their differences, intermarried and formed one race, and when their languages became one, it was the Saxon name that was retained for the animal on the hoof, while it was the Norman name that was applied to the meat that graced the table. L. H. B.

DRESS FOR COUNTRY WOMEN.

Choose Colors That Are Serviceable and Also Pleasing.

A simple street costume is the most serviceable dress for the farm woman. Farm women, as a rule, use bad taste in selecting and making their clothing. They do not need so many clothes as the city woman, because they go out less. They should then select a dress of good quality, a color that will not grow tiresome, and a texture that can be cleaned easily, for the dusty or muddy roads, and crowded buggies are hard on clothes.

The hat, usually, shows the poorest taste. Do not select a hat with much lace and "fady" flowers. The lace catches dust, and most flowers fade, when exposed to the sun as much as a country woman's hat is. The durable street hat is more becoming, usually, and more economical.

As a rule, country women do their own sewing, and for this reason they

should make their clothes plain, but neat. The neat, plain dress is more attractive than a dress with laces and frills if it doesn't fit.

The gayer colors, red and pink and blue, usually predominate in the country. Choose a color that is becoming, as well as durable. White, for summer wear, is serviceable and becoming to all.

TWO SWARMS MADE \$21.

The Profit that Can be Made from Raising Bees.

From an investment of \$15.55, two swarms of bees made \$21 worth of honey. Besides, they furnished honey for a family of four from the middle of June until Christmas, and gave a new swarm of bees worth \$5 last year. From one hive, 109 pounds of honey were taken. At 15 cents a pound, the average selling price of the honey, it brought \$16.35. The two swarms of bees were worth \$10, and the hives, including one for the new swarm, at \$1.85 each, were worth \$5.55, making the invoice \$15.55. As one swarm made \$16.35 worth of honey, it made 80 cents more than enough to pay for the total expenditure. What the other swarm made was clear profit.

These bees belong to Custodian Lewis of the Kansas State Agricultural College. He says that every farmer who lives where alfalfa grows ought to keep a few bees. They do not require much work and they give good results for the investment. They should be watched closely, but a little work at the proper time is all that is necessary. Honey is better than syrup or molasses.

Mr. Lewis keeps his bees in a quiet place where the sun shines on them in the morning but not later in the day. He says if the bees are given lots of room and not allowed to get too hot, they are not so likely to swarm. Ten frame hives with a large opening at the entrance are the most satisfactory.

CUT DOWN YOUR MEAT BILL.

Warm Weather Is a Good Time for You to Economize.

As the weather grows warmer, cut down your meat bill. Fifteen cents worth of salmon should do for four people, two meals. This dinner costs about 60 cents, including the croquettes for supper:

BREAKFAST	
Omelet	Cream of Wheat
Coffee	Fried Potatoes Muffins
DINNER	
Salmon Box	Fruit Soup
Sliced Tomatoes	Mashed Potatoes Gravy
Bread	Butter
Coffee	Orange Salad
Lemon Ice	Marguerites
SUPPER	
Salmon Croquettes	French Fried Potatoes
Bread	Creamed Asparagus
Ice Tea	Butter Chocolate Cookies
Salmon Box.—1 cup rice, 1 1/2 cups salmon, 1 cup white sauce.	
Cook the rice according to directions, make white sauce and add to salmon, season well. Line a buttered bread pan with the warm rice. Fill center with creamed salmon, cover with rice and steam one hour, or bake one half hour in a moderate oven. Unmold on a hot platter and serve.	

Don't Fail to Criticise.

Criticise the courts as much as you please; they are not entitled to peculiar privileges more than any other institution. The institution that can not live down criticism does not deserve to live. But remember to use fairness and judgment in your criticisms. The tendency of the times, especially in Kansas, is to make decisions in accordance with the substance rather than the form.

This is the substance of a concise, interesting explanation of the "Relation of the Courts to the People," by Henry F. Mason, associate justice of the supreme court of Kansas, yesterday morning in chapel.

To boil eggs three minutes will boil them soft, five minutes will cook hard all but the yolk, and eight minutes will cook them hard clear through.

IS IT GOOD-BYE PIE?

THAT NATIONAL DELICACY ABOUT TO LOSE ITS GRAND CHAMPIONSHIP.

Frozen Desserts and Puddings Are Easier to Digest, so Domestic Science Experts Say—Here Are Some Good Hints.

I can make a cherry pie, Billy Boy, Billy Boy; I can make a cherry pie, charming Billy; I can make a cherry pie, quick's a cat can wink her eye; I can make a cherry pie, charming Billy.

But pie may lose its place as grand champion delicacy, domestic science experts say. Frozen desserts and puddings are gradually driving it from the table. That is conceded by the most loyal friends of pie. Mrs. Mary Pierce Van Zile, professor of domestic science at the Kansas State Agricultural College, admits it.

It's because frozen desserts and puddings are more wholesome and easier to digest. There is so much fat in the pastry of a pie, and in such a state that it is hard to digest.

Pie—who wouldn't like to have a juicy piece right now? Anybody would, except some grouchy dyspeptics. Did anybody ever live who said: "No, thank you, I don't care for any," when pie was passed around? History records no such person, unless it were John D. Rockefeller. From the small boy who runs out of the house with a quarter-section of it balanced on one hand and a ball bat in the other to the old New Englander who must have it two or three times a day, pie means life on a little higher plane. It's the national delicacy, pie is.

ONLY ONE HOPE.

There's only one hope—better pie. If this be realized it may head off the impending crisis and make it unnecessary for some patriotic American to start a back-to-the-pie movement.

Good pie is not easy to make. For that reason pie compliments are particularly acceptable to cooks. You have noticed that. Women with years of experience in the kitchen sometimes are failures when it comes to making pie.

A few hints from Mrs. Van Zile may be of help to some that have occasional disappointments with their pie-making. She offers these suggestions: First of all have everything cold when making the pastry. That is the prime essential. Use ice water if possible. A marble slab and a glass rolling pin are ideal utensils. Use only enough water to keep the dough together. Handle the dough carefully and as little as possible. For shortening, either lard or butter may be used. It is just a matter of preference. Lard may make the pastry a little more tender, but some persons believe butter gives it a better flavor.

GOOD PUFFS.

Then there is the puff pastry, liked for its lightness. This is made from layers of plain pastry, butter, and air. Its lightness depends upon the amount of air enclosed between the layers and the expansion of that air in baking. Good puff pastry will rise four times its first height.

There is no time of year, Mrs. Van Zile says, when filling of some sort cannot be had for a pie. Dry fruits can be used when there are no fresh fruits. In using a fruit that is very juicy, sprinkle a little flour over the pie crust; it will take it up.

Water a Magnifier.

When in need of a microscope for the study of botany, one may be made in the following manner: Bend a small wire or the stem of a leaf so as to form a small loop not larger than the ordinary drop of water. When this is done place a drop of clear water in the loop and the microscope is complete. This temporary device will prove valuable where a strong magnifying glass is not at hand.—*Popular Mechanics*.

Will Have an Arch Built.

The present senior class is planning to have a stone arch built at the main entrance of the athletic field. This will be done with the money left over from that collected to publish the class book, and with the profits from the senior play.

QUICK AID TO TREES.

IN FOUR HOURS THIS STUDENT USED
1500 GALLONS OF SPRAY.

Co-operative Orchard Work Near Hutchinson by Agricultural College Experts with Extremely Interesting Reports of the Expense.

Without very much being heard about it, the most extensive experiments conducted for years are now under way in the orchards around Hutchinson. They have to do with the control of blotch on apples, protection against frost by using fire pots, and exceptionally valuable data in the using of several sprays. The experiments are co-operative between the owners of the orchards and the department of horticulture in the state agricultural college.

AFTER THE BLOTH.

In the big Underwood orchards, Louis C. Williams, a junior student, is getting data on frost protection, and collecting data in spraying demonstrations to control blotch on apples. Leon Swingle has charge of an extensive experiment with a combination of sprays to control blotch. He is trying out sprays, fungicides, and insecticides. Each man keeps a careful account of the cost in his experiments. For instance: Mr. Swingle sprayed 300 trees in 4 hours, one day last week, with 1500 gallons. The mixture was a little stronger than usual because of the canker-worm being present in Reno county. Instead of 4 pounds of arsenate of lead he used 6 pounds to 100 gallons of water—90 pounds for the 1500 gallons. The trees being Missouri Pippins and particularly subject to blotch, Bordeaux mixture was used in combination with the lead. The mixture was made up with 6 pounds of copper sulphate and 8 pounds of lime to 100 gallons of water.

The cost was:

Materials.	Cost.
90 pounds arsenate of lead.....	\$ 9.00
90 pounds copper sulphate.....	4.50
120 pounds lime.....	60
Labor.	
Driver and hoseman, 17½ cents an hour...	1.40
Engineman, 20 cents an hour.....	.80
Three mules, 17½ cents an hour.....	1.00
Total.....	\$17.30

AS TO THE AVERAGE.

The cost of mixing was very small because one man was doing the weighing and mixing for seven other spraying outfits on the Yaggy plantation. The eight spraying outfits, with gasoline engines, were working Sundays and overtime to get the first spray on the trees within a week of the blossoms' fall. Two thousand gallons a day rates as an average for these outfits; one day they averaged 2400 gallons.

Louis Williams reduced his cost of operating by having his driver ride the tower of the sprayer wagon and use the tower hose. This required only two men, where three ordinarily were needed.

"It is a mighty encouraging thing," said Albert Dickens, professor of horticulture, this afternoon, "that orchards sprayed last year are in no case seriously infested with canker-worms this year. Orchardists are realizing that proper spraying is a good investment."

WOULD YOU SELL PRODUCE?

Then See that Your Horse and Buggy Are Clean.

There is no doubt that merchants judge the quality of farm produce partly by the appearance of the horses and buggies or the wagons the farmers drive to town. At any rate, attractive equipment is the only thing that will convince the townspeople that the driver has a neat farmstead.

A good horse is essential, but the buggy and the harness require attention, also. Of course, a new buggy is more attractive than an old one, but almost any buggy will give a good impression of the owner if it is free from dirt and in repair. A buggy rarely needs repairing if it is well sheltered when not in use, and the bolts and screws kept in place. Oil the axles frequently, but sparingly. To prevent the breaking of the top material, leave the top up while the vehicle is in the

shed. In washing a buggy soak the dirt thoroughly, then, under a slow stream of water from a pail or a hose, rub off the dirt with the hands. This method is not so fast as others, but the use of a forceful stream of water alone will not cleanse thoroughly, and a brush or a cloth will collect particles of dirt and scratch the enamel, thereby removing the gloss.

The driving harness can be kept oiled and polished at a slight cost, with any harness oil or preparation. Oil should be used sparingly, especially on the parts of the harness handled most.

For Commencement Week.

Here is the program for the Commencement week activities:

JUNE 11-15.
SUNDAY.—9 A. M.
OPENING SESSION.

Address to class in rural life problems..... The Reverend Matthew B. McNutt, Plainfield, Ill. (Under auspices of Christian associations of the college.)

4 P. M.
AUDITORIUM
Baccalaureate Sermon..... Dr. Clement G. Clarke, '88, Pastor, First Congregation Church, Minneapolis, Minn.

MONDAY.—9:30
AT THE COLLEGE.

President Waters presiding.

General topic: The Unity and Interdependence of Rural Life.

Address..... President Waters
Dependence of Economic Values of Cultural Institutions.

Address..... Governor Walter Roscoe Stubbs

Questions for discussion: Effect of extension of tenant system on rural institutions. What are a landlord's responsibilities for the community in which he holds his land? Will improvement of rural institutions tend to permanency of residence? Indications of a greater permanence in rural life.

AFTERNON.
General topic: The Vitalizing of the Rural Religious Forces.

Discussion led by the Reverend M. B. McNutt.

Address.....

Development of Rural Leaders.
Imperative need of a vitalized rural church:
a. From standpoint of the city church.
b. From standpoint of the nation. c. From standpoint of Christian manhood and womanhood.

The task of the Y. M. C. A.

What can the rural Sunday-school accomplish?

Topics for discussion: How can the rural church solve the financial problem? What is the best type of religious service?

EVENING.—6:30.

Interchurch banquet. Pastors and officers of Manhattan churches and visiting friends. The Reverend M. B. McNutt will tell the story of his work at Plainfield, Ill.

8 p.m.—Recital by Music Department, Auditorium.

TUESDAY.

9 a.m.—Meeting of the Regents in the President's Office.

General topic: Efficiency in the Organization of Rural Religious Forces.

Discussion led by The Reverend M. B. McNutt.

Address..... Charles Dillon

Some Facts Which a Rural Religious Survey of Kansas Would Reveal.

Address..... The Commission Form of Government in Church Work.

Address..... Elimination of Waste in Rural Religious Life.

Address.....

Can a Denomination do a Community Work?

Topics for discussion: The need of a rural religious survey. When are church consolidation, church federation and church cooperation desirable and practicable?

AFTERNON.

A. E. Holt, chairman.

General topic: Division of Labor and Unity of Purpose Among Rural Institutions.

Discussion led by E. T. Holton.

Address..... E. T. Holton

A Conservation Program for the Rural Community.

Address..... W. A. McKeever.

Conservation of Boys and Girls.

Address..... E. W. Westgate.

The Grange and Rural Life.

The Y. M. C. A. and the church.

An efficiency program for the rural religious life.

Report of committees.

8:15 p.m.—Senior Class Play, Auditorium.

WEDNESDAY.

8:30 a.m. to noon—Senior Class Day Exercises, College Campus.

2 p.m.—Alumni Business Meeting, Old Chapel.

3:30 p.m.—Choral Union Concert, College Auditorium.

8:15 p.m.—Choral Union Concert, "Elijah," College Auditorium.

THURSDAY.

10 a.m.—Commencement Exercises, College Auditorium.

12:30 p.m.—Faculty-Alumni Luncheon, Nichols Gymnasium (or Women's Gymnasium).

2 p.m.—Cadet Band Concert, College Auditorium.

3 p.m.—Dress Parade and Sham Battle, Cadet Corps, Campus East of Auditorium.

4:30 p.m.—Alumni Ball Game, Athletic Park.

Who knows most grieves most for wasted time.—Dante.

CATALOGUE YOUR HERD.

IT IS BUSINESS LIKE AND IT WILL SAVE YOU MUCH TROUBLE.

Every Breeder Should Do This Who Owns 25 or More Pure-Bred Animals—Convenient Size for Mailing.

Every live-stock breeder who has a herd of 25 or more pure-bred animals for sale should have a catalogue. This is the advice of P. N. Flint, assistant in animal husbandry at the Kansas State Agricultural College.

The catalogue helps a breeder in describing the animals to visitors and to prospective buyers reached only by correspondence. Breeders who send out catalogues show that they stand for real business principles, which attracts the serious attention of prospective buyers. The catalogue also helps to keep a record of the herd.

LOOSE-LEAF FORM.

The form and size of a catalogue should be made convenient for mailing. A good idea is to have it made in loose-leaf form, so that leaves may be added to or taken from it at will. It is quite essential that catalogues be business like, neat, and attractive.

The things to appear in the catalogue are: Name and location of the farm; shipping facilities; arrangements for meeting prospective buyers; an announcement including a brief statement of the origin, history, character, and present status of the herd, telling where the breeding stock comes from; the terms of sale; the breeder's guarantee, and a photograph and a write-up of the herd sire in detail. Every animal should be catalogued in such a manner that the name, record number, date of birth, color, breeder and his address, and a tabulated pedigree running back for five generations may be determined.

AND THE PEDIGREE.

The name of every animal in the pedigree for three generations back should be accompanied by the registry number, color, date of birth, and the name of the breeder. The tabulated pedigree, which is the better because it shows the entire ancestry for a number of years back, should be accompanied by a brief, accurate description of the animal itself as to individuality. Also prepare a list of the first four sires in each pedigree, giving their breeding record.

The Value of Coal Land.

The work in connection with the conservation of mineral resources of the public domain by the United States Geological Survey in April shows some interesting values. In the work of coal classification, 578,054 acres were appraised as coal land, with a value of \$11,327,538, and 520,894 acres were recommended for restoration as noncoal land. During April, 1,799,609 acres of land in New Mexico, believed to be underlain with coal, were withdrawn and 830,422 acres of land in Colorado, Montana, Utah, and Wyoming, found on geologic examination not to contain coal, were restored to the public domain.

Growth of Cement Industry.

Few mineral products can show so rapid an increase in output as Portland cement. The production for 1909, according to the United States Geological Survey, was the greatest in the history of the industry, being 65,399,889 barrels, valued at \$52,797,973. In 1900 the production was only 17,231,150 barrels, in 1902 it was 25,753,504 barrels, in 1905 it was 31,675,257 barrels, in 1906 it was 51,000,445 barrels, and in 1908 it was 52,910,925 barrels.

Make Hay While You Plow.

Make hay while you plow your potatoes! Sow cow-peas before you plow your potatoes for the last time. They will be up before the weeds get a start. This plan works well if you leave your potatoes in the ground and dig them in September, according to Albert Dickens, of the horticultural department. Other crops may be substituted for the peas. When these are cut for feed they leave the ground clean for the digging of the potatoes.

A Summer School

AT THE

Agricultural College For the Teachers

Summer Term begins June 15 and ends July 27

Agriculture, Manual Training, and Home Economics

The legislature passed a law requiring all grade and rural school-teachers to pass an examination in elementary agriculture. This law will become effective June 1, 1911.

If you expect to teach school it will pay you to invest your spare time, and the small amount necessary to equip yourself properly, in the vocational subjects required by the new law.

The Courses Offered

Domestic Science.—Food Preparation. Class work 5 hours, laboratory 10 hours per week. Attention is given to method of presentation of domestic science in grade and high schools; to the application of general principles of teaching to the teaching of domestic science; to the planning of courses and equipment of laboratories.

Domestic Art.—Hand and Machine Sewing. Class work 1 hour, laboratory 14 hours per week.

The primary steps of hand-sewing are carefully observed. This knowledge is then applied in the making of a plain or fancy sewing bag, a hemstitched towel, scarf or lunch cloth, an apron, etc. The hand work is followed by practice in taking measurements, and instruction is given in drafting patterns, and making garments by machine. Lectures are given on the history and process of manufacture of the materials used in sewing.

Manual Training.—Woodwork for the grammar grades; woodwork for the high schools; forging; molding and foundry practice; machine-shop work; manual training for primary grades.

Drawing.—Freehand, object, color and design, and mechanical drawing.

Elementary Agriculture.—This course is planned primarily for teachers in the rural and village schools. The subject-matter is selected and the work presented with this end in view. The course covers a year's work in elementary agriculture for the rural and village schools. All laboratory work will be presented in such a way that it can be adapted to the needs of the individual teachers. This course is especially adapted to prepare the teachers to meet the requirements of an act of the last legislature, which requires teachers to take an examination in the elements of agriculture. It includes a study of farm crops, live stock, poultry, farm forestry, soils, agricultural botany, and plant propagation.

General Science.—This course covers economic entomology and zoölogy, chemistry, elementary physics, electricity and light, vocational education, rural sociology, methods of teaching.

Educational Excursions

The College has planned excursions under the leadership of experts to the experimental fields, the stock feeding yards, dairy and poultry barns, the gardens, orchards, the tree-planting plots, and the hog-cholera serum station.

Expenses

The only fee charged by the College will be the regular incidental fee of \$3.00, which the State law requires to be charged of all students who are citizens of Kansas. Nonresident students will be charged a fee of \$20.00 for the first term and \$10.00 for each term thereafter. Board and room may be had for from \$4.00 to \$5.00 a week.

For further information address

H. J. Waters, President
Manhattan, Kansas

MULES BETTER THAN HORSES.

And They Require Only Two Thirds as Much Feed.

A mule will do as much work as a horse on about two thirds as much feed. For draft work the mule is valued higher than the average horse, in nearly every instance. The animal most desirable for general farm work is one that weighs about 1200 pounds. It is well adapted to drudgery and burden bearing, making it of very great service in the army.

When two years old the mule should be used at light work. Never allow the animal to do anything against your bidding. The mule is steadier at work and is troubled but little by flies and heat. There is less danger of it falling sick in the busy season; the common horse-troubles disturb him very little. Wind-broken mules are seldom seen. Mules live much

longer than horses. Mare mules are generally preferred because they mature sooner and are of a better disposition.

The greatest objection to a mule is that it seldom gives cattle or sheep any peace when in the pasture with them. A mule is mischievous.

THE KANSAS INDUSTRIALIST

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Number 34

GIRLS MEET THE COWS.

THOSE STUDYING ELEMENTARY AGRICULTURE LEARN ABOUT DAIRYING.

They Made a Trip to the Barn Under the Guidance of Professor Reed—Some Valuable Knowledge Gained.

How many girls know the difference between an Ayrshire and a Guernsey? Or how many know what the Babcock test is, or what "per cent of butter fat" means? Not many, and not so many boys either, for that matter. The girls who are taking elementary agriculture at the Kansas State Agricultural College know these things, because knowing them is a part of the course they are studying. These girls are to be teachers in grade schools. The law which takes effect June 1 says they must know elementary agriculture.

"WHY" AND "WHEN?"

These girls went to the dairy barn one morning this week and met the cows. O. E. Reed, assistant professor of dairy husbandry, was with the class. "Why" and "when" became familiar words to him because he had to answer many questions. They discussed silage and its benefits. They were told of the care that should be exercised in every dairy in the handling of milk. They learned much from the painstaking methods of the college dairy department.

Then Professor Reed took the class over to the dairy laboratory. Every girl received a sample of milk in a small bottle that had a graduated neck. To the 17.6 cubic centimeters of milk were added 17.5 c. c. of sulphuric acid. The bottles were placed in a tester and whirled for five minutes under steam pressure. Then they were removed and a little hot water added.

AS TO BUTTER FAT.

"That's to help dissolve the solution so that all the butter fat will come to the top," Professor Reed said. The samples were put back into the tester and whirled for two minutes. When this had been done, the bottles were placed in water of 180 degrees temperature.

"Now," said Professor Reed, "what you see collected at the top of the bottle is butter fat. You can read it by this scale. This one reads three per cent. That is, if a cow gives twenty pounds of milk a day and the milk tests three per cent, then that would make six tenths of a pound of butter fat."

"Sure," they all said, "we understand." But they stayed over class time and asked Professor Reed many questions that showed they had learned something that morning. They heard lectures this week on dairying, poultry, and animal husbandry. The class numbers fifty-two girls and one or two young men.

WILL THE ALUMNI COME?

Its Graduates Are the Chief Asset of Every Big Institution.

Every graduate and former student of the Kansas State Agricultural College who possibly can do so should be in Manhattan for Commencement week, beginning Sunday, June 11.

You, Mr. Alumnus, are in debt. You owe the college something and the institution is dunning you for payment. Will you pay up?

The state of Kansas educated you at an immediate loss. The final returns in good citizenship will close the account with the state. You have yet to square yourself with the college. The best way to do it is to arrange with your fellow alumni members to return to your college next month for Commencement. Lay aside your superficial dignity long enough to be one of the college family again. The exper-

ience brains that you now possess will find hundreds of ways of bringing about a lasting fellowship.

Clement G. Clarke, '88, of Minnesota, is to preach the baccalaureate sermon, Sunday, June 11. It will be one of the big features of the week.

The men who have not been back for five or ten years will take most of Monday to get their bearings, learn the names of the new buildings, and find the trees that they planted in their "P. M." days. Also, they will want to hear a few of the addresses of the rural life and church conference. Governor Stubbs' address Monday morning in the conference and that of the Rev. M. B. McNutt in the afternoon will be of particular interest.

Arrangements are being made for class reunions. The senior play, in the evening, will be the crowning effort of the year in dramatic lines. A section of the best seats in the house will be reserved by the class for the alumni. These seats may be obtained until 6 o'clock Tuesday evening. The proceeds of the play are to be used in helping to erect an arch at the new athletic field. Seats will be reserved for those who send cards to the college secretary or call at the college post-office before six o'clock Tuesday afternoon.

Wednesday is to be the senior class day. Exercises on the college campus will serve to remind old-timers of the glory of previous years. Before the business meeting of the alumni at 2 o'clock in the old chapel, Professor Valley has promised to sing two or three songs.

The Commencement address, Thursday, the alumni-faculty luncheon after the address, the ball game in the afternoon, and the big reception in the evening—the usual informal reunion—will fill the day. This being the time for the five years' reunions of the classes of '01's and '06's, there will be a particularly large number of these classes present. All alumni are always welcome, but a particularly strong effort is to be made from now on for class organization and class reunions at the regular five years' anniversary. The big class of '91, having its twentieth anniversary, will have a large representation, and the resident members are trying to have all the class present if possible. The attendance of '96ers will be a big one, also.

Reservations for the alumni-faculty luncheon should reach the office of Dean Webster, who is chairman of the board of directors, by Saturday, June 10. If reservations for the class play and the Commencement week concert are desired, a statement made on the card will be referred to the college post-office and reservations made accordingly. Declarations are being received by the old grads on the campus of names of the old-timers to be present this year.

FINE ART WORK IN IRON.

Instructor Hollar Is Making Lamps and Hinges for the "Gym."

Sixteen pairs of ornamental strap hinges have been made for the new gymnasium. They are twenty-eight inches long, seven inches wide at the base, and have twelve screw holes. They were made from five sixteenth-inch plate iron. J. H. Hollar, instructor in forging, did the work. He has also just finished four ornamental lamps for the hall posts in the Engineering Building.

Will Go to California.

F. M. Hayes, D. V. M., assistant in the department of veterinary medicine, has been appointed to a similar position at the University of California, at Berkeley. Dr. Hayes was graduated from the Kansas State Agricultural College in 1908. He has been employed by the department of veterinary medicine since that time.

NO MORE TIN BRIDGES.

NOT IN THESE KANSAS COUNTIES, ANY WAY, THE PLANS SHOW.

Work and Plenty of it for the State Highway Engineer and His Helpers—Whipping Into Line for Good Roads.

Bridge building and road making certainly are looking up in Kansas. Every man connected with the state highway engineer's office at the Kansas State Agricultural College is out in the country and has been out every day since it was possible to begin work. Getting down to actual details, these counties are building bridges of reinforced concrete or stone, large or small, under the direction of assistants from the office of the state highway engineer: Riley, Wichita, Harvey, Wabaunsee, Shawnee, Coffey, Pottawatomie, Phillips, Meade, Rush, Butler, and Washington. At Burlington, Coffey county, the state highway engineer's men are helping the people in building concrete jetties along the Neosho river for flood protection.

Practically every county, W. S. Gearhart, state highway engineer, says, is putting in only a good type of reinforced concrete or stone bridges. For instance, in Rock Creek township, Wabaunsee county, the reinforced concrete bridge cost \$855. It has a twenty-foot span carrying a sixteen-foot roadway. The materials for this bridge were hauled from twelve to twenty miles, thereby increasing the cost. In the same township another bridge of the same kind cost \$895. These bridges are made to carry a twenty-four ton engine. Their approaches are tested to stand a very heavy strain.

As to road activities, the situation is extremely encouraging. Powhattan township, Brown county, is grading 100 miles of road this summer. A traction engine, grader, and crew are working every day when the weather permits. Some excellent road is being built. John Williams, Peter Williams, R. L. Oldridge, A. S. Meyers, and John Wintersheets are the men directly in charge of the work. The business men of Powhattan are giving it every encouragement. Powhattan township has 175 miles of roads. When the summer's work is finished all these roads will have been graded.

A. R. Losh, from the state highway engineer's office, spent two days with the township officials last week, helping them with some of the worst of their troubles in road making. One mile of the most troublesome highway in the township was put in excellent condition at a cost of \$50. The average cost for these roads, twenty-four to thirty feet wide—graded, dragged earth roads—is about \$20 a mile. Mr. Losh has advised, in every instance, that after grading these roads they should be harrowed to break up all the lumps and clods, and that the shoulders should be cut down from the banks on all sides to the road. This prevents filling up of the waterways and saves floods resulting therefrom.

The Hodges road law has not yet been utilized as much as desired. Garnett is building ten miles of rock road under this law. One mile of rock road is being built at Enterprise, and Johnson county is doing some work.

FROM CHURCH TO FARM.

An Interesting Bit of News About Mrs. Nellie (Kedzie) Jones.

The change from the ministry of a large city church to farm life is a big step to take. This is what the Rev. Howard Murray Jones and Mrs. Nellie (Kedzie) Jones have done. Mr. Jones has been a pastor of the Lyndale Congregational Church, of Minneapolis, Minn. Mrs. (Kedzie) Jones graduated from the Kansas State Agricultural

College in 1876. Mrs. Jones, then Mrs. Kedzie, accepted the position as teacher of domestic science at this college in 1882. The following year she received the degree of M. S.

Mr. Jones has been pastor of the Lyndale Congregational Church for the last two years. The arduous duties of the ministry have been hard and he and Mrs. Jones have decided to move to the country. They have purchased a 1600-acre farm near Marshfield, Wis.

While at the Kansas State Agricultural College Mrs. (Kedzie) Jones made many friends and helped to make the department of domestic science successful.

GEORGE B. LONGAN TO SPEAK.

Two Short Talks by The Star's City Editor Promised for June 2.

Students in the department of industrial journalism are to hear an address, Friday, June 2, by George B. Longan, city editor of *The Kansas City Star*. Mr. Longan will talk for a few minutes in chapel. At 11 o'clock he will speak in Kedzie Hall, probably in room 55.

Few men in the country, probably, have a keener sense of news value than has George Longan. He is an editor of the rare kind that sees a point quickly and misses few chances to do the very best for his paper. Moreover, he has, to an unusual degree for an "inside man," a sympathy with the reporter in his work and a clear understanding of the difficulties that surround the getting of the stories it is his duty to view only from the "desk viewpoint." His address in Columbia, last month, to the students of journalism was exceptionally interesting and valuable. Mr. Longan makes no pretensions to oratorical ability, but there are few speakers whose "talks" are so entertainingly arranged or so cleverly presented.

FOR CROP IMPROVEMENT.

A Council of Grain Exchanges That Is Eager to Co-operate.

The Council of North American Grain Exchanges has appointed a strong crop improvement committee with an active secretary. The object of the committee is to encourage the growth of better crops of grain.

The Millers' Association is working with the grain exchanges with the same end in view. It is to the financial benefit of all grain exchanges, flour manufacturers, and farmers that there should be improvement in the grain crops of the country. Therefore farmers should welcome the assistance of the grain men in the improvement of crops.

The grain men suggest that a crop improvement department should be organized in connection with all farmers' organizations. Good, clean seed in a properly prepared seed-bed seems a simple proposition, but its practical application is quite another matter. To put in practice the best ideas in crop growing would immeasurably increase grain production.

As to Dead Seed.

A mixture of dead seed can easily be detected by the color. Fresh seed which will grow is light olive-green and when rubbed in the hands gives a bright, glossy surface. Whenever alfalfa seed is any shade of brown it will not grow and is worthless. If a sample contains any considerable percentage of discolored seed it should not be accepted.—*Alfalfa in America*, by Joseph E. Wing.

Has 12 Million Miles of Wire.

The annual report of the American Telephone & Telegraph Company for last year says that 1,200,000 miles of wire were added to the lines, making a total mileage of 12 million.

SHALLU, \$1500 A BUSHEL.

THE LATEST SWINDLE SINCE THE DAYS OF "ALASKA" WHEAT.

Neat Little Packets at \$1 Each With 1000 Sorghum Seeds, County Rights, and a Contract—Watch for the Bogie Man.

You remember the 222-bushels-an-acre-Alaska-wheat story of a year or two ago, don't you? Remember how some smooth persons sold that seed for \$1200 a bushel—so much a pound?

Well, here's another, only worse, and farmers in Kansas, Oklahoma, and Illinois are falling for it—sorghum seed at \$1500 a bushel! The post-office department inspectors are after it—the swindle, not the seed. Said Arthur H. Leidigh, assistant professor of agronomy in the state agricultural college, this morning:

"Watch out for the man who sells little packets of this sorghum seed—a thousand seeds to a packet, retail price \$1500 a bushel. Someone has been soliciting, for four months, for persons to take state and county rights to sell this seed at a dollar a packet. Every man who buys a county right must buy one hundred packets of seed and agree to sell nine hundred more. He signs a contract. He obligates himself to sell the thousand packets at a dollar each."

WORTH \$1.20 A BUSHEL.

Professor Leidigh has been co-operating with C. R. Ball, of the United States Department of Agriculture, who has charge of the grain sorghum investigations, in trying to run down the perpetrators of the latest swindle. Mr. Ball reported yesterday that he had run down a company in Oklahoma that is selling seed in the manner described: by the packet. As a good grade of the seed sold by this company can be bought for \$1.20 a bushel, the attractiveness of the graft can be estimated.

The sorghum used by the promoters is called Shallu. It has been sold, also, as "California Wheat," "Mexican Wheat," "Egyptian Wheat." It has been grown more or less throughout the sorghum-producing area of the United States for several years, and in the Southern States for a longer period. Where conditions are favorable for its growth, the crop has at first aroused great expectations. However, when harvest time arrives it is discovered that the heads, which have a plume-like appearance, are made up mostly of chaff and glumes, and that the seeds are hardly as large or as plentiful as those contained in common kafir. The result is that, while the field produces large amounts of headed grain, as far as bulk is concerned, it rarely ever makes more than two thirds as much threshed grain as kafir.

CAME FROM INDIA.

Shallu sorghum came originally from India and is practically the only variety from that country grown to any extent in the United States. The seed is white and somewhat flatter than the seed of kafir. The test weight by the bushel is quite high, sometimes reaching sixty-two pounds a bushel. The growth of the plant in many ways resembles that of the durra, or Milo, and Jerusalem corn.

Shallu has been grown extensively for fodder and hay, but it is usually discarded after a few years and either Sumac, Orange, or kafir grown in its stead. As a grain crop it can hardly be recommended as superior to kafir or Milo, although its seed is of fairly good feeding quality.

The real mission of Shallu just now is to earn big money for the promoters. Mr. Leidigh advises anyone who has had dealings with the men to turn the information over to the post-office authorities.

THE KANSAS INDUSTRIALIST

Issued weekly during the college year by the Kansas State Agricultural College, Manhattan, Kansas.

PRES. H. J. WATERS Editor-in-chief
PROF. C. J. DILLON Managing Editor
DR. J. D. WALTERS Local Editor

Except for contributions from officers of the college or members of the faculty, the articles in THE KANSAS INDUSTRIALIST are written by students in the department of industrial journalism, under the direction of Prof. Charles Dillon.

The typesetting and other mechanical work is by students in the school of printing, of which J. D. Rickman is superintendent. Both these departments are in Kedzie Hall.

Newspapers and other publications are invited to use the contents of the paper freely without credit.

The increasing demand for THE KANSAS INDUSTRIALIST makes it necessary to insist upon the payment of the regular subscription price, 50 cents a year, invariably in advance. No commission is paid any one for subscriptions, and no advertisements are accepted. The paper is sent free only to the alumni, to officers of the state, and members of the legislature. This rule will not be violated.

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SATURDAY, MAY 27, 1911

FIFTY YEARS AGO.

For half a century Decoration Day has served the unhappy purpose of reviving old sorrows, keeping alive old animosities, stirring up old griefs. Next Tuesday should mark the beginning of a new era, for it will be fifty years since the Civil War began! Think of it: Fifty years! Isn't that long enough to learn to forget and forgive? Can't you lay aside your memories, and resolve to welcome Decoration Day in the future, for a new reason?

Why not go out Tuesday, perhaps with the tottering few, who, as Walt Mason says, "Were young and stalwart in '62," and put your flowers where you've put them these many years, with the better feeling in your heart that hereafter the day shall be remembered only for the distance it marks from war times?

Why not just wipe out that sore spot and look up for a while to where the sun is shining and the sky is blue? Fifty years is a long, long while. Don't let us carry this burden any farther. Let's put it down, next Tuesday, among the "Little Green Tents," and thank God it is fifty years since the Civil War.

THE INDEPENDENT PAPER.

Heavy crusading, said Charles H. Grasty, of the Baltimore Sun, a few days ago, is unnecessary when the news is presented truthfully and fully. That is the point exactly. Why are certain rich men allowed to violate a city ordinance daily and hourly safe from criticism? Has commercialism anything to do with it? Politics? Religion? Why is the crossing squad policeman blind?

BUY AT HOME.

"Just as good flour is made here as anywhere," said the Manhattan Mercury, recently. That is the proper way to talk. Taking the word of the Mercury for it, that this flour is just as good as any other flour, the people should heed the admonition to buy at home. Several things are involved: You probably will save money; the local miller will earn a living, and the bran and shorts from the grain will very likely stay in this district, where they belong. If you continue to go to other places to do your buying you discourage local industry; you injure your own town and help another's. It isn't fair. It isn't right. Buy at home.

THE ORIGIN OF MEN.

"Some of the greatest men in history came from the farms." That expression, the Rev. A. E. Holt said, recently, is responsible for many desertions from country homes. "Grant smoked," has been blamed for the mistake of thousands of boys. There is no way around these things. Great men did come from quiet places, but it was not because of their point of origin. The right stuff was in them. It is equally true that some of the world's greatest men never were upon a farm. The stories of rail splitting, of log cabins, of poor but honest parents, all are very interesting. But

they won't answer the big, human question involved in the determination of boys and girls to cut loose from the farm home and take their chances under the lights of the city.

THE ROAD TO HAPPINESS.

If you know something that might benefit others, share it with them. If someone else seems likely to make a mistake, help him out, but in doing it don't make him feel like a simpleton. Talk happiness as you go along. Don't be a grouch. You have troubles, but so has everyone. Indeed, the other fellow may be bearing a heavier load than yours; he may have to meet more yaps in a day than you meet in a year. You may never know just how much grief there is in the other fellow's life. So don't knock. Remember James Whitcomb Riley's kindly admonition: "Just be Glad." Life will be a lot pleasanter if you don't carry the idea that you are the sole custodian of all the virtues and all the world's useful knowledge. There are others. This, says the Grand Rapids Herald, is the only way to live.

BEWARE THE SOIL ROBBER.

The interesting stories buried in the recent census are almost numberless. For instance: The farmers in New York state spent one million dollars, last year, for fertilizers. The farmers in Kansas spent only \$73,000.

But the farmers of Kansas should not become unduly proud of this. To continue the soil robbery practiced by too many farmers in this fine state will assuredly reverse those figures; that is to say, the next census may show that a million was spent in Kansas for fertilizers. The way to prevent this is to return to the soil some of the things you take from it; have your wheat milled in Kansas and so keep the bran and shorts for Kansas soil; rotate your crops; grow the right things; be awake. The way to gain this wisdom is to listen to the voice that preaches it—and that voice is heard much in Kansas.

HOT WEATHER FOODS.

Your endurance during hot weather depends upon your food and clothing. In preparing food at this time use fats and meats very sparingly, and replace them with plenty of fruits and vegetables.

Dress comfortably. Use lightweight, pretty material. Have the dress made collarless, with short sleeves. If made of good material it will be dainty and comfortable.

Arrange the hair simply so it will not be annoying.

As for managing the household in hot weather, the best plan is to get up early and have the morning work done before the days get hot. Then as the dinner is being prepared get the supper, too. Few persons object to a cold supper in hot weather.

Plan the work in the spring so that as little housework as possible need be done.

L. C.

FARM WOMEN SHOULD READ.

Are you women who live on farms in the habit of going to bed when supper is finished? If you are, try to get out of it. Take a nap in the afternoon, as all hard-working housewives should do, and when night comes read something. There is no excuse now for farm women not being as well read as those who live in town.

You cannot afford to neglect taking a good daily paper. You have a daily mail. In addition to your newspaper, take a magazine or two, and get better acquainted with good authors. Every country woman can get the latest books now.

L. C.

EXIT THE BROOM?

Of course it will never happen, or at least it won't happen for many, many years; but the fact is, good people, a persistent effort is being made to do away with brooms. Some persons would literally sweep them from the

A GOLDEN TEXT.

The Lord is my shepherd; I shall not want.

He maketh me to lie down in green pastures: he leadeth me beside the still waters.

He restoreth my soul: he leadeth me in the paths of righteousness for his name's sake.—Psalm 23:1, 2, 3.

earth. Why? Because, alackaday, a gigantic trust is making vacuum cleaners! What do you think of that for a blow at one of the world's most useful household articles?

The march of progress is ruthless in its energy. Since the beginning of time—or for a very long while, anyway—no home has been complete without a broom. And not only homes, mind you, but stores, factories, hotels, everywhere, in every kind of structure, and in tents, for that matter, brooms have been trumps. You couldn't go anywhere and not see one. You couldn't clean your pipe without one. The new broom swept clean in fact and fancy. The world honored it. Every family had several, and in the closing days of their usefulness, after the brightness of the straw had

The Little Green Tents.

BY WALT MASON.

THE little green tents where the soldiers sleep, and the sunbeams play and the women weep, are covered with flowers to-day; and between the tents walk the weary few, who were young and stalwart in '62, when they went to the war away.

The little green tents are built of sod, and they are not long and they are not broad, but the soldiers have lots of room; and the sod is part of the land they saved, when the flag of the enemy darkly waved, the symbol of dole and doom.

The little green tent is a thing divine; the little green tent is a country's shrine, where patriots kneel and pray; and the brave men left, so old, so few, were young and stalwart in '62, when they went to the war away!

dimmed, the handle served for a wash-tub stick, a horse for the baby, or any of a dozen things.

And here comes a trust and tries to wipe out the broom! It has actually been denied the upper floors in the homes of the well-to-do, and some strange, buzzing machine has taken its place. The demand for brooms, consequently, has fallen off, and as a result the farmers of two big counties in Illinois have organized with an agreement not to grow any more broom-corn for five years.

What if some such action had been taken when the spinning-wheel, the family loom, the hand churn, the tall-dip were attacked? What if every farmer still believed in oil lamps and refused to use the waste energy of his gas engine to make electric light! Abas the broom; viva la vacuum cleaner.

BE A GENERAL FARMER.

Every farmer should avoid taking chances. Practise general farming. Let your poultry pay the grocery bill, and the profit from your grain will be wonderfully increased. Maintain the fertility of your soil by keeping live stock. The plant-food contained in the manure of fifty dairy cows is worth \$2000 a year. Ninety per cent of this can be saved. The manure of fattening stock is even more valuable than this.

The same crop will not have to be grown on the soil continually. Have one or two chief crops and a few minor ones. In this way, if one crop fails or is low in price, you will have the others upon which to rely.

If you keep live stock you can afford to keep a hired man through the winter. You will also keep your horses used to work so they can do more if required. The boys also will be more satisfied if kept busy.

W. D. E.

THE BEST SELLER.

Men who have toiled and worried and struggled for literary fame must marvel, sometimes, when they read reports like that recently sent from London where the British and Foreign Bible Society has just been in session.

The society has issued eight versions of the Bible during the last year. It

has published the Scriptures in 432 languages. In all, 6,975,886 copies of the Bible have been sent out.

Since 1804, when the society was founded, there have been issued more than 229 million copies of the scriptures, of which 72 million were in English.

Still, why should they marvel, these puny handlers of pens or typewriters? Their poor productions live only for a day, and even the best are of few years compared to this fine old book, the Bible. Here is a book that one may take up in any hour and find in it solace and comfort. Why should it not be the best seller; why shouldn't millions in every clime read it and enjoy its friendship and consolation?

"MY BEST TEACHER."

Under the heading, "My Best Teacher," D. W. Working, '88, superintendent of college extension work in the West Virginia Agricultural College, writes in the West Virginia School Journal a beautiful tribute, doubtless to the memory of G. T. Fairchild, once president of the Kansas State Agricultural College. Professor Working does not give the name of the teacher to whom he refers, but

Flowers to the Living.

If I-morrow should die,
You would endeavor to forget
My faults, my weaknesses and try
Perhaps to even magnify
The virtues that were mine, and let
Your judgment of me rest, at last,
Upon my worthy deeds, alone;
You would forget when all was past.
The weaker traits that I had shown.

Why will you not, ere I depart,
O'erlook my faults sometimes and see
And judge with kindness in your heart?
Why will you not, before I start
Upon the long, last journey, be
Content to judge me by the best
And fairest things I've done and said,
And kindly overlook the rest—
Why will you wait till I am dead?
—S. E. Kiser.

SUNFLOWERS.

Watered stock: The milk in Kansas City.

A screen in time saves many a fly in the milk pitcher.

Where's the good of putting things off? Strike while the iron's hot.—*Barnaby Rudge*.

Published portraits of Justice Harlan make it clear why he disagreed in the famous Oil Trust case.

Now there is talk of withdrawing the \$2.50 gold piece from circulation. We supposed this had been done.

If you are too lazy to make hay while the sun shines you'll have to borrow an umbrella when it rains.

You may now practice self-restraint when the customary pin-head inquiry is heard: "Is it warm enough for you?"

A woman living in Englewood, Kansas City, has a large collection of pitchers. Perhaps she has the one the Blues need.

You will have to carry on your higher education at the same time that you are educating your children.—*Herbert Spencer*.

The "I-Used-to-Know-Him-When—" Club will be in session here next month. The alumni is, or are, coming back. Welcome.

Some things are past human understanding: Why, pray, should a young man, otherwise normal, have his picture taken in athletic "trunks"?

The Christian Science Monitor says John Hays Hammond left behind a suit that is being pressed for \$1,600. That's a big price for pressing a suit.

The most marvelous thing about this back-to-nature business—in the back yard—is the frequency with which the weeds do grow while a man is away for a day.

The nation may rest in peace. The Standard Oil officials have been interviewed to the effect that they will obey the Supreme Court's mandate. Aren't they the minding boys?

Louis D. Brandeis, efficiency expert, has offered to investigate the post-office department. It is to be hoped he will discover what it is they put in the muscilage on the stamps.

We should insist upon seeing both his hands open before permitting the enemy to embrace us, as the generals did, a few days ago, in signing the Mexican peace agreement.

An extra ace in the deck caused the deaths of three men, a few days ago, in Kittanning, Pa. Remember, children, never to play cards, but if you do be exceedingly careful of your extra aces.

One delight in walking along a crooked road is the fact that one never knows what is to be the next surprise. Of course it may be a motor-car or a mad bull, but that's one of the incidents.

Some papers printed the entire decision in the Standard Oil case—three pages, about twenty columns. It is suggested that these papers now offer a prize for any person who can prove he read it.

Young Drummond, who was expelled from the Hotel Alexandria in Los Angeles, last Monday, is said—in the despatches—to have "shaken the dust of the hotel from his feet." What do you think of that? And in the Wichita Beacon, too.

Anyway, folks, what could be prettier for a graduation gown than pure white? Wouldn't you like to see the old-fashioned girl in white, a bit of pink or blue here or there, perhaps, her hair done in a really human way, sans rats et sans the puffs?

LOCAL NOTES.

William H. Andrews, assistant professor of mathematics, was the Commencement speaker at Hope, May 19.

Miss Flora Knight, assistant in English, has been asked to address the Washington county institute some time in June on the subject: Applied English.

ALUMNI NOTES.

J. C. Burson, '01, is a bank cashier at Hewins, Kan.

Grover Poole, '02, returned from California this week. His home is in Geary county.

Jules C. Cunningham, '05, delivered the high-school commencement address at Garrison, Kan., May 12.

Fred Fockele, '01, will be in Manhattan Commencement week to attend the exercises. He is cashier in a bank at Waverly.

The '05 Alpha Betas are planning a reunion Commencement week. They have kept in close touch by means of a chain letter.

At least twenty members of the '01 class expect to visit the Kansas State Agricultural College during Commencement week.

J. N. Bealey, '06, and wife, of Wheatland, Wyo., are visiting the college this week. Mr. Bealey is an irrigation farmer.

H. N. Whitford, '90, was married last Saturday night. Mr. Whitford is chief of the bureau of forestry in the Philippine Islands.

Mrs. Alice (Perry) Hill, '03, is in Manhattan visiting relatives and will remain until after Commencement. Her home is in Walla Walla, Wash.

The Manhattan alumni will have a reunion and picnic supper on the college campus the evening of May 30. This is to be an annual affair hereafter.

May (Harris) Burt, '05, and her son, Harris, of Denver, Colo., are visiting her parents on College Hill. H. A. Burt, '05, expects to join them at Commencement time.

V. E. Bryant, '10, has received his M. S. degree from the University of California. Mr. Bryant has been an instructor at the University of California for the last year.

Bryant Poole, '01, visited the college this week. He is with the Kansas City Live Stock Commission Company and was on the way to Kansas City from Belleville, Courtland, and Mankato.

Laura (Lyman) Weaver, '06, is in Manhattan and will remain until after Commencement week. Mr. Weaver will join his wife here Commencement week. Mrs. Weaver is visiting her parents, Dr. L. J. and Mrs. Lyman.

The eastern alumni of the graduates of the Kansas State Agricultural College had a reunion in New York City, May 23. R. R. Rees, '85, representative from the fifth congressional district of Kansas, was the principal speaker. His subject was: The Kansas State Agricultural College in Politics. Many graduates attended the reunion.

A VISIT TO CONCORDIA.

The Advanced Dairy Stock Judging Team to See a Dutch Belted Herd.

The Concordia Creamery Company, of Concordia, will entertain Professor Reed and twenty or more members of the advanced dairy stock judging team to-day. The class left here yesterday afternoon. The creamery company has thirty Dutch Belted cows and eighteen Holsteins. Professor Reed and his boys expect to return to Manhattan to-morrow morning.

A Student Long Ago.

Colonel Jasper F. Brady was a student in the Kansas agricultural college more than thirty years ago—he isn't sure how much more, but anyway it's his business. He came back, last Tuesday, and visited such old haunts as still remained of former years. Incidentally he declared his purpose to come back again for Commencement

day. Colonel Brady said life didn't hold any too much joy for even the best of men, and he didn't intend to let any escape that came his way. Whereupon he deftly extracted the proper amount from his pocket and subscribed for THE KANSAS INDUSTRIALIST. "Things look different now," said the colonel as he went his way.

Colonel Brady spoke in student assembly Wednesday morning.

Colonel Brady is a brother of the Rev. Cyrus Townsend Brady, preacher and author.

ROSES AND BRICKS? NO.

Crimson Ramblers and Red Walls Do Not Harmonize.

For goodness sake don't plant a Crimson Rambler next to a red brick wall.

Most climbing roses are rather hardy, and with a little care can be made most beautiful ornaments. They are sure to do well on the south side of the house or porch, on arches, summer houses, and trellises. Use a little common sense in selecting the colors of climbing roses—have the colors of the rose and house in contrast.

The Crimson Rambler is perhaps the most popular of the climbing roses, because of its clusters of red flowers and bright green foliage. The "Dorothy Perkins" and the "Madam Perry," however, are really more delicate and beautiful and are just as hardy. Red, white, yellow, and the shades of pink are the usual colors of climbing roses.

Among the best are the climbing "Clothilde Soupert," a lovely white rose with a faint blush center; the Baltimore Belle, and the climbing "Woolton."

Any of these varieties will improve the appearance of either the porch or arbor. Of the Wichuriana Hybrids, the Jersey Beauty and Evergreen Gem are the best.

It does not require an experienced gardener to tend climbing roses. Tying and training them should be done every week during the growing season. In the spring the roses should be enriched with manure and bone-meal, and some of the old wood should be cut away every autumn after the roses are two years old.

TOMATOES, MILLIONS OF THEM.

Many State Institutions to be Provided For by the College.

"What are you going to do with all those plants?" A visitor became inquisitive when he saw one of the college greenhouses given over entirely to long beds of tomato plants.

"The horticultural department has a big demand for tomato plants this year. Several of the state institutions—the Orphans' Home, the State Penitentiary, the State Hospital, the Hays Branch Experiment Station, and others are to be supplied with tomato plants this year. So the department planted twenty-three varieties of the best tomatoes, and lots of them. They will be transplanted in the gardens of those institutions.

"I havn't counted the plants," said the man who takes care of them, "but just estimating I should say there must be several millions of them. Some, of course, will be small and good for nothing."

A Gipsy Supper for Alumni.

The Manhattan alumni is to have the annual Memorial Day picnic. Instead of a basket supper the committee is to serve a "Gipsy" supper. If the weather permits, this strange repast will be eaten in the pine grove at the foot of Lovers' Lane, otherwise in the Women's Gymnasium. Albert Dickens, professor of horticulture, is president of the Manhattan alumni and Professor Barnett is treasurer.

Unusual Sunrise.

A boy heard his teacher say that the sun would rise over the tropic of Capricorn on certain days. He listened attentively, but failed to comprehend, so when he came home he told his mother, with a good deal of seriousness, that the sun was going to rise over the top of the Kafir-corn. The boy's father had raised some Kafir-corn last summer.—*Standard*.

LOOK BEFORE YOU EAT.

THAT TEMPTING "MUSHROOM" MIGHT BE A DANGEROUS POISON.

Kansas Has Many Deadly Weeds That Appear Very Harmless—The Names and How You Can Tell Them.

Don't be fooled when gathering mushrooms. Be sure you know which plant is edible. There are two very poisonous fungi plants very much resembling the eatable variety. Take, for instance, the Fly Fungus or Fly Amanita, a robust plant, four to sixteen inches in height. This is a very poisonous plant, but can be distinguished from the common mushroom, as it has white instead of purple gills.

Then there is another similar variety known as the Death Cup or Poison Amanita. This plant grows from three to eight inches in height, with a white stem. The plant itself may be white, green, brown, yellow, or spotted. The Death Cup can be distinguished from the edible variety by its white gills, cup, spores, and the fact that it grows in woods instead of meadows. This is the most poisonous of the fleshy fungi plants.

BEWARE THE POKEWEED.

The common Pokeweed is a poisonous plant, also. The plant grows from six to nine feet in height. It has purple stems and in the summer, purple-black berries. The Pokeweed has many uses in the household, the fresh shoots being a substitute for asparagus. Care must be taken in regard to this root, as it is very poisonous.

The Corn Cockle, a woolly annual, one to three feet in height, has proved fatal when flour has been used from which the cockle seed was not removed.

The various species of Larkspur so common throughout the western states have been reported as fatal to cattle.

The Loco-weed, a silvery-white plant growing eight to twelve inches in height, is fatal to stock, especially to horses. Between the years of 1881 and 1885, Colorado spent nearly \$200,000 in an attempt to exterminate this weed. The action of the weed on horses resembles that of alcohol or drugs on human beings.

The Rattleweed or Wild Pea, a hairy plant, three to eighteen inches in height, with yellow pea-like flowers, is poisonous to cattle and horses. Little trouble results from eating the weed in the field, but when put into hay it produces a decline of vigor and slow death.

THE POISON IVY.

The Poison Ivy, sometimes called poison oak, is a climbing shrub with three-foliate leaves, aerial roots, and greenish flowers. The leaves somewhat resemble those of the box-elder. The poison is a nonvolatile oil, found in all parts of the shrub, and can be readily removed with alcohol. Applications of an alcoholic solution of sugar of lead give permanent relief.

The Jimson-weed, a stout, bushy plant two to five feet in height, is poisonous. It is very ill-smelling, has funnel-shaped flowers, and spiked seed pods. Poisoning usually results from taking over doses when used as a medicine.

Besides these there are several other poisonous plants, such as the American False Hellebore, the Black Cherry, the Caper Spurge, the Snow on the Mountain, the Poison Sumac, the Red Buckeye, the Water Hemlock, the Oregon Water Hemlock, the Poison Hemlock, the Broad-leaf Laurel, the Narrow-leaf Laurel, the Great Laurel, the Staggerbush, the Branch Ivy, the Black Nightshade, the Bittersweet, and the Sneezeweed.

A FLOOR 9000 FEET WIDE.

Enough Lumber in the Philippines to Cover Some of Kansas.

There is enough soft lumber in the Philippine Islands to build a floor lengthwise across Kansas 9000 feet wide and one inch thick. This wood is very much like the pine of the northern states. The average height of the trees

is from 120 to 150 feet, and it would require several men to reach around one of them. The area of the Philippine Islands is greater than New York, New Jersey, Pennsylvania, and Delaware. Three fourths of this area is covered with these trees. They belong to the diptero carpus family. They are characterized by the two wings borne on the fruit, or seed.

Dr. H. N. Whitford, chief of the division of investigation, told of these things not long ago in an address before a special meeting of the Science Club. He has been in the Philippines for the last seven years. The subject of his talk was, "Some Aspects of a Tropical Forest." What is generally known as the jungle is on the outside of the forest, Doctor Whitford said. After this outer rim is passed no difficulty is encountered in going through the forest, unless it

Service.

And he gave it as his opinion, that whoever could make two ears of corn, or two blades of grass, to grow upon a spot of ground where only one grew before, would deserve better of mankind, and do more essential service to his country, than the whole race of politicians put together.—Swift, "*Gulliver's Travels*."

is a young forest. In the older forest the jungle has been pushed to the top. The tree-tops are so entwined that to cut down a tree one must destroy three or four.

In a study of patches of forest it was found there were from fifty to eighty species. About nine tenths of these trees belong to the same family.

GREENS ARE IN SEASON.

Some Menus That Are Very Tempting at Present.

Do you eat greens? If the leaves of some young, tender plants are cooked until they become quite soft, they are very wholesome, as well as appetizing. Here is the weekly menu with greens for dinner.

BREAKFAST	
Sliced Pineapple	
Veal Hash on Toast	
Raisin Muffins	
	Coffee
—	
DINNER	
Cream of Pea Soup	
Roast Lamb with Mint Sauce	
Boiled New Potatoes	
White Mustard Greens	
Coffee	
Butter	Rolls
Strawberry Shortcake With Cream	
—	
SUPPER	
Cold Sliced Lamb	Potato Croquettes
Lettuce with Mayonnaise	
Grape Ice	Macaroons
	Ice Tea

THERE'S COTTON IN KANSAS.

But There Is Not Enough to Make a Real Plantation.

Statistics of Kansas cotton production show that every acre put to such use yielded, in 1910, 200 pounds. This sold for \$10 a hundred pounds—\$20 profit to the acre.

Cotton is a fairly hardy crop and thrives well between 40 degrees south parallel and 40 degrees north parallel. The annual rainfall of Kansas is adequate for its cultivation. Rich, loamy soil is rather necessary for a heavy crop, but nearly all river and creek bottom-land will insure good returns.

There are many small areas in Meade and Montgomery counties that could be cultivated to cotton. Little time is required in the planting, and if irrigation is not necessary the picking of the pods after they "burst" is the only hard labor.

The Forestry Appropriation.

The total appropriation for the Forest Service for the fiscal year ending June 30, 1912, is \$5,533,100. Of this, the salary list of regular employees fixed by statute calls for \$2,316,680. This covers the force of supervisors and rangers who care for the national forests, as well as office employees. The general expenses require \$2,714,420.

PUT AWAY YOUR TOOLS.

THAT MEANS MACHINERY, ON A FARM, WHERE MONEY IS WASTED.

A Shed, Professor Ten Eyck Says, Will Return at Least 33 1/3 Per Cent Profit—Use a Little Paint Occasionally.

American farmers buy more than one hundred million dollars' worth of farm machinery every year. The efficiency of this machinery is reduced rapidly by careless handling. It is a very rare thing for farmers to paint even the wagon-box, and it is about as uncommon for them to make any repairs until the machine is "laid out" for lack of them.

A. M. Ten Eyck, professor of farm management in the Kansas State Agricultural College, has proved that machinery sheds will return at least 33 1/3 per cent profit. That is, if you will build a shed and keep your machinery in it you will get the original cost back in three years. It is worth while, don't you believe so?

WHEN THE TROUBLE COMES.

There is even a more important consideration in the care of implements than merely the cost of repairs. If a machine would break down after all the season's work was done the question of repairs would not be so serious. But haven't you noticed that if the binder breaks down it usually is when you are starting in on your largest wheat field, which the dry south winds are ripening rapidly? Do you enjoy telegraphing to some binder company and then waiting for those repairs to come by express while the wheat is growing poorer in quality every day?

It does not pay to be careless with farm machinery. Build a good shed to shelter the tools; it is doubtful if you can make 33 1/3 per cent profit in any other way. And after the shed is built keep the implements in it when not in use. Very often when a farmer has a shed he has his tools scattered all the way from the far fence corner to the hay loft. And don't think that your shed is too small to hold all the tools. If you pile them up a little it is wonderful how much machinery may be crowded into a small space. There is a shed on a farm in southeastern Kansas twenty by fourteen feet and eight feet high, in which is stored, every winter, a binder, a wheat drill, two buggies, mowing machine, disk, walking plow and riding plow, and all the small tools used on the farm. But there is true economy in the way the machines are put away.

USE A LITTLE GREASE.

When the tools are brought in from the field look them over carefully, tighten up all loose nuts, and order all repairs at once. If a part looks weak you should order a new piece. It is cheaper to buy the piece then and put it on rather than to have the machine disabled in the rush of the summer's campaign. Put grease on the plowshare and moldboard and grease all bolts that must be loosened; as, for example, the draft pins on the beam of a plow.

Use plenty of care in operating a machine. If you are plowing in stumps, remember that a plow is not a stump-pulling machine. Any implement has a limit to its strength and capacity, and if you exceed that capacity there will be trouble. If the farmers would use reasonable care in the operation, shelter, and repairing of farm machinery, that one hundred million dollars implement bill would be reduced.

Why?

Why has a boot two sizes marked on it? When we buy a new pair of boots we notice that there are often two numbers marked on the sole. If we take a six or seven size, we find on looking at the sole that there is not only this number, but also a two or perhaps three. The first number is the size of the boot as regards the length of foot and the second number refers to the width. It is called by the shopkeeper the fitting, and of course a three is a wider boot than a two.—*Children's Encyclopedia*.

WHAT 1 PERCENT CAN DO.

THAT MUCH OF THE OCEAN WOULD COVER THE EARTH 290 FEET.

"The Data of Geochemistry," Frank W. Clarke's Book, Tells Things that Startle One—What the Earth Contains.

One per cent doesn't impress you as much of a mathematical quantity, but you think differently of it when you hear that one per cent of the ocean would cover all the land in the world to a depth of 290 feet!

This interesting information you will have to take from Frank W. Clarke, of the United States Geological Survey, who usually figures rather closely before he says anything. But there are other interesting things from Mr. Clarke's pen in his latest book, "The Data of Geochemistry." Through study and observation of the volcanic outflow, the geologist knows approximately the composition of the earth's crust to a depth of ten miles below sea level. This thickness of ten miles, he says, represents known matter. The vastness of the figures which it is necessary to employ in the discussion of this ten-mile lithosphere, as it is termed, transcends ordinary human comprehension.

The volume of the lithosphere, including the continents elevated above the sea, is 1633 million cubic miles.

A cubic mile of average rock weighs 12,800 million tons.

The volume of the ocean is 302 million cubic miles.

The atmosphere is equal in weight to 1,268,000 cubic miles of water, which, however, is only one two-hundred-and-thirty-eighth of the volume of the ocean; yet this would be sufficient to raise the level of the ocean forty-five feet on all shores and to submerge an important part of the continents.

The salt in the ocean would make 4,800,000 cubes each one mile in dimensions, which, if spread over the United States, would form a layer one mile high.

In comparison with this outer ten-mile section of the earth's crust, the thin sheet of organic matter on the surface—the prairie and valley soils, the alluvial bottoms, and the rich table-lands by whose products man lives—becomes a mere film, a skin.

NO MORE MID-TERM WORRY.

A Change in Rules Makes These Examinations Unnecessary.

In a recent meeting of the faculty these changes were made in rules concerning examinations. They will take effect at the beginning of the next fall term:

The regular mid-term examinations are to be discontinued; but the teachers are to report to the deans at the end of the third and sixth weeks of each term the standing of all students doing work that is below passing.

The rule concerning the final term examinations has been modified so as to read as follows:

(1) That six days be set aside at the end of each term for final examinations, which shall be two or three hours in duration for full subjects, at the option of the head of department, and two hours for less than full subjects.

(2) That the holding of final examinations in laboratory work shall be optional with the head of department, but shall in no case exceed one hour in length.

(3) That the spring term final examinations in senior subjects be given during the week preceding Commencement week.

The old rules concerning early and deferred examinations have been slightly modified. They now read:

No regular examination may be given at a date in advance of that provided, except that at the discretion of the head of the department a student may be permitted to take his examination with another class in the same subject instead of in his own class.

In case of excusable absence on examination day, a deferred examination may, by permission of the head of the department, be given to a student

without special formality if taken within a reasonable time.

The rule which formerly read, "Examinations to remove conditions are held the first Monday of each term," has been made to read, "Examinations to remove conditions are held the Saturday next to the last Saturday of each term."

The following rule has been abolished: "For studies completed at mid-term, such examinations are held the second Monday following the completion of the subject."

One sentence concerning the rule for making up of deficiencies has been modified so that it will now read: "With the consent of the head of the department, a deficiency may be made up outside of class, but if not made up by the last Saturday of the first term the student is in attendance following the term in which the deficiency occurred, the student's grade is changed from D to F, and he is required to make up the deficiency by repeating the work in a regular class." The remainder of this rule is not changed.

LOSS FROM WOLVES, \$5850.

Some Means of Protection in Kansas Against These Animals.

Kansas wolves devoured \$5850 worth of mutton in 1910. There were 1272 sheep killed by these animals, and every sheep was valued at approximately \$4.60. In addition to this, the farmers of Kansas lost the wool of these sheep, valued at 20 cents a pound, or \$45. There are more dogs than sheep in Kansas, as most folks know, but the wolves, up to the time of going to press, had not eaten one. Thousands of pigs, chickens, turkeys, and other profitable farm animals fell victims to coyotes and wolves.

The problem the farmer has to solve is how to exterminate this source of grievance. Lead, injected with rifles and shotguns, is a very sure method, but wolves and coyotes are night marauders, and hunting in the dark gives poor results. Traps are good agents for catching these animals, but usually the coyote's cunning exceeds the farmer's. Poisoned meats and carcass baits are as harmful to the farm dogs and other carnivorous stock as to the sheep and poultry killers. Notwithstanding the dog's uselessness, few farmers ever are found without one; some would stay awake all night if the dog didn't bark. And while the dog barks at a tree or the moon Mr. Wolf sneaks around and steals a sheep.

GOOD FOOD FOR COWS.

Canadian Field Peas Sown With Oats Bring Good Results.

Canadian field peas and oats sown together make a good feed for cows when the grass is short. This crop may be fed as hay and silage or used for pasture.

The ground is prepared the same as for sowing oats. Plow the ground as early in the spring as it can be worked, and harrow shortly after plowing to pulverize soil and prevent evaporation of the soil moisture.

The peas and oats are sown together in the same drill, the peas at the rate of one bushel to the acre and oats one and one half bushels to the acre. Plant as soon as possible after preparing the seed-bed.

His Ten Years' Wages.

A. H. Willis, of Summers township, traded his ranch here for a 480-acre improved farm in Anderson county, valued at \$40,000. Willis came here about ten years ago from Iowa, with less than \$1000 and broken in health. At first he bought only a quarter-section. Later as he was prospering he kept buying more land. He traded his ranch to-day at even money. When he disposes of his live stock to square up his debts, the ranch will clear him \$40,000. Pretty fair wages for ten years' work, isn't it? Willis says he doesn't expect to make money that fast in his new location, but he has arrived at the age when he wants to take things easier, and he is certainly entitled to it for all the hard work he did in the past.—*Salina Journal*.

In case of excusable absence on examination day, a deferred examination may, by permission of the head of the department, be given to a student

TAR IS A GOOD FRIEND.

SOME USES THAT IT CAN BE PUT TO BY FARMERS.

Besides Having Preservative Qualities It is Also a Disinfectant—Neither Heat nor Cold Will Affect It.

Tar, if only he knew it, is every farmer's friend. It is easily kept, too. Neither heat nor cold will affect it. It has great preservative power, and is a disinfectant. It keeps exposed wood in good condition, and machinery coated with it will not rust. Fence posts dipped in hot tar will not decay. It can be used for marking boxes, crates, hides, and pelts. Troughs, tanks, and boats are made water-tight by running melted tar in the cracks. If your horse steps on a nail, fill the hoof with hot turpentine and later cover it with a coat of the paint. The life of outdoor pulley ropes can be lengthened by dipping them into a kettle of hot tar. Gloves and overalls for rough work are often coated to prevent their wearing out.

Tar is used frequently in combating animal pests. According to G. A. Dean, assistant professor of entomology at the Kansas State Agricultural College, a fresh band applied every few days will prevent canker-worms from defoliating trees. Pour the liquid tar into the holes of tree borers and be bothered no more. Bots may be kept from sheep by the use of tar. If the mites trouble your chickens apply the liquid to the cracks of the henhouse and watch the bugs wiggle and die. If applied to the nests of setting hens the pests will leave. Vermin on small pigs can be eliminated if crude tar is applied behind the ears and down the back.

CUCUMBER CATSUP; LIKE IT?

And There is the Grape Kind, Also; not Always Tomato.

Catsup isn't made always from tomatoes, although that is what most persons suppose. Here is a recipe for cucumber catsup:

Cucumber Catsup.—Choose large, ripe cucumbers, pare them, remove the seeds, and grate the pulp. To every pint of this pulp allow one half pint of cider vinegar, one fourth teaspoonful of cayenne pepper, one teaspoonful of salt, and two heaping tablespoonfuls of grated horseradish. Drain the grated cucumber through a colander, then mix with all the other ingredients. Bottle and seal.

Cooked Tomato Catsup.—Scald a half bushel of ripe tomatoes and remove the skins. Add half cup of salt, one pound of sugar, one tablespoonful of salt, two tablespoonsfuls of each of ground mace, celery seed and cinnamon, and two quarts of vinegar. Boil the mixture slowly until it is reduced to half its original bulk. Strain it through a sieve, reheat, and store in sealed bottles or in tight, closed cans. A larger quantity of spice may be desired by some cooks.

Cold Tomato Catsup.—Peel and chop very fine one half peck of ripe tomatoes. Drain the juice through a colander into an earthen jar and add one half cup of grated horseradish, one cup of salt, one cup of black and white mustard-seed, mixed, two tablespoonfuls of black pepper, two red peppers, two finely chopped celery roots, two teaspoonfuls of celery seed, one cup of brown sugar, two tablespoonfuls each of ground cloves and allspice, and a quart of cider. Mix well and seal.

Grape Catsup.—Cover two quarts of ripe wild grapes with vinegar and cook them soft. Strain, and add to the juice one cup of sugar, one tablespoonful of cinnamon, one tablespoonful each of cloves and allspice, and one fourth teaspoonful of cayenne. Cook this mixture until it is thick, and seal in bottles. If the vinegar is very strong, use less of it and cook the fruit slowly to avoid burning it.

Respectfully Referred.

An expert is a man who knows all about it up to the time another expert is put on the case.—*Christian Science Monitor*.

A Summer School

AT THE Agricultural College For the Teachers

Summer Term begins June 15 and ends July 27

Agriculture, Manual Training, and Home Economics

The legislature passed a law requiring all grade and rural school-teachers to pass an examination in elementary agriculture. This law will become effective June 1, 1911.

If you expect to teach school it will pay you to invest your spare time, and the small amount necessary to equip yourself properly, in the vocational subjects required by the new law.

The Courses Offered

Domestic Science.—Food Preparation. Class work 5 hours, laboratory 10 hours per week. Attention is given to method of presentation of domestic science in grade and high schools; to the application of general principles of teaching to the teaching of domestic science; to the planning of courses and equipment of laboratories.

Domestic Art.—Hand and Machine Sewing. Class work 1 hour, laboratory 14 hours per week.

The primary steps of hand-sewing are carefully observed. This knowledge is then applied in the making of a plain or fancy sewing bag, a hemstitched towel, scarf or lunch cloth, an apron, etc. The hand work is followed by practice in taking measurements, and instruction is given in drafting patterns, and making garments by machine. Lectures are given on the history and process of manufacture of the materials used in sewing.

Manual Training.—Woodwork for the grammar grades; woodwork for the high schools; forging; molding and foundry practice; machine-shop work; manual training for primary grades.

Drawing.—Freehand, object, color and design, and mechanical drawing.

Elementary Agriculture.—This course is planned primarily for teachers in the rural and village schools. The subject-matter is selected and the work presented with this end in view. The course covers a year's work in elementary agriculture for the rural and village schools. All laboratory work will be presented in such a way that it can be adapted to the needs of the individual teachers. This course is especially adapted to prepare the teachers to meet the requirements of an act of the last legislature, which requires teachers to take an examination in the elements of agriculture. It includes a study of farm crops, live stock, poultry, farm forestry, soils, agricultural botany, and plant propagation.

General Science.—This course covers economic entomology and zoology, chemistry, elementary physics, electricity and light, vocational education, rural sociology, methods of teaching.

Educational Excursions

The College has planned excursions under the leadership of experts to the experimental fields, the stock feeding yards, dairy and poultry barns, the gardens, orchards, the tree-planting plots, and the hog-cholera serum station.

Expenses

The only fee charged by the College will be the regular incidental fee of \$3.00, which the State law requires to be charged of all students who are citizens of Kansas. Nonresident students will be charged a fee of \$20.00 for the first term and \$10.00 for each term thereafter. Board and room may be had for from \$4.00 to \$5.00 a week.

For further information address

H. J. Waters, President
Manhattan, Kansas

STUDY THE HORSES' FEET.

There's Science in Knowing How to Shoe a Horse Properly.

A good farrier should have a thorough understanding of the anatomy of horses' feet.

Before shoeing, make a thorough examination to learn the condition of the horse's feet and the shape and quality of the hoof. Note the manner in which the feet leave the ground, their line of flight, and the manner in which they are placed on the ground. The slope of the pasterns and hoofs should be from forty-five to fifty degrees. Notice the length of the toe and the amount of horn to be removed to straighten the feet.

Careful attention should be given to the wear of the old shoes. Wear is the effect of friction between the shoe and the ground at the moment of contact. The properly leveled hoofs

should set flat on the ground; the "ground wear" of the shoe should be uniform at every point.

The lateral cartilages and planter cushions should not be trimmed too closely. They serve as a protection, to break the shock, when the foot is set on the ground.

Bad and indifferent shoeing cause lameness, diseases of the feet, and irregularities of gait which will cause the horse to become unserviceable.

Signal Speeds Over Cable.

About three tenths of a second is the time required for a signal to pass through the Atlantic cable, a distance of 2700 miles.

New York's Shipping Front.

The total frontage of Greater New York upon the water is 444.80 miles. Of this, 125.10 miles is available for shipping.

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Number 35

HOW TO BLEND COLORS.

MISS WEEKS' STUDENTS ARE GETTING FINE CULTURAL TOUCHES.

It Isn't All Plowing and Cooking at the State Agricultural College—These Girls Will Have More Artistic Homes.

Let a ray of sunlight pass through a prism of glass. The light comes out showing several colors—red, orange, yellow, green, blue, and violet. You have noticed this, perhaps, but did you stop to think that these are what are known as the standard colors? Red, yellow, and blue are the primary colors, and from them other colors are made. For example, from red and blue, violet is made, and then by mixing violet with some other one of the six standard colors another color would be obtained.

Some of these colors blend and lend harmony to a scene, or a room, or one's clothing, while other combinations stand out and irritate the sense of sight, or hold the wearer up to ridicule.

MAKING BORDER DESIGNS.

Every term Miss Ella Weeks, instructor in drawing at the Kansas State Agricultural College, teaches large classes in color and design how to put colors together so that they will be artistic, rest the eyes, and add interest and pleasure to the things to which they are applied.

One of the exercises of the class was to make some border designs. After the exercises had been worked out Miss Weeks took some before the class for criticism. After these had been shown one or two were held up in which the colors seemed much too bright. The class immediately laughed. Yet the borders that created the laugh were not thought funny while they were being painted. But when shown along with some that pleased the eyes they suffered in contrast.

A COLOR TASTE.

This illustrates how much can be learned about color taste in a short time by a systematic study.

It isn't all plowing and cooking at the agricultural college. These students—girls, in this case—will take home knowledge that will prove its value in more artistic homes. Why shouldn't a farmer's daughter know how to decorate her home properly? Why shouldn't she know how to choose carpets and wall-paper that can be kept in one room. For that matter, why shouldn't she learn that carpets and wall-paper—come to think of it—are quite out of the running, and that rugs and tinted walls are proper?

West Virginia Needs Help.

Miss Rachel Colwell, professor of domestic science in the University of West Virginia, has written to the extension department of the Kansas State Agricultural College asking full particulars concerning the extension work in this state in the home economics line. Miss Colwell hopes to establish this work next fall in West Virginia.

DRY FARMING CONFERENCE.

An Important Meeting to Be Held at Hays, June 7 and 8.

It should rain at Hays, Kan., June 7 and 8, for that is the time and place of the Western Kansas Dry Farmers' Conference. Five good programs have been arranged, offering speeches by some of the best known authorities. June 7 is "dry farming day," and June 8 is "live stock day." Programs will be given each afternoon and evening, and a special program for women will be given at 9 o'clock in the morning and 8 o'clock at night, June 8. Forenoons will be given to inspecting the experimental crops and fields of the Kansas experiment station.

John T. Burns, secretary of the International Dry Farming Congress; Mrs. J. T. Burns, secretary of the International Congress of Farm Women; H. M. Cottrell, agricultural commissioner, Rock Island railroad; E. C. Chilcott, in charge of dry farming investigation, United States Department of Agriculture; W. H. Campbell, author of Campbell's System of Soil Culture; Mrs. Lilla Day Monroe; Governor Stubbs, and others are on the program.

The speakers from the college will be H. J. Waters, president; Ed. H. Webster, director of the experiment station; P. N. Flint, assistant professor of animal husbandry, and one or two others.

Every farm family present will receive valuable information. To encourage the attendance, the Hays Commercial Club will see that every visitor finds a place to procure lodging and meals. A free dinner will be given each day at State Park.

This is the second Farmers' Conference, and a much larger attendance is expected than last year. A copy of the complete program may be obtained from A. M. Ten Eyck, Hays, Kan.

A TINY HOSPITAL ROOM.

Only 1½ x 2 Feet But Every Necessity is to be Found There.

Did you ever see a hospital room 1½ x 2 feet? Two girls in the home nursing class, taught by Miss Ula Dow, have made one.

The room is made of an ordinary box 1½ x 2 feet. The walls are covered with dark green paper. The woodwork and floor are stained with an oak stain, giving a pleasing finish. The floor has no covering except two medium sized rugs made of tan raffia, touched with green. The furniture resembles that in most hospitals, the simple bed, chiffonier, chairs, and tables of white. The screen, suggested by Miss Dow as being handy for a sick room, is also of white. All the pictures for the walls suggest quiet and rest. The window curtains are of dainty white material that may be washed easily.

The most original ideas are the dolls, one dressed as a nurse, and the other as a patient in bed. The bed, if you investigate carefully, will be found made according to the rules of bed making in the best hospitals.

Miss Clara Berg and Miss Zephine Towne made the model and equipped it.

The noblest things are sweetness and light.—Arnold.

KREHBIEL IS TO SPEAK.

THE COMMENCEMENT ADDRESS TO BE BY A LELAND STANFORD MAN.

Two Graduates, Clarke of K. S. A. C. and the California Teacher, an Alumnus of K. U., Will be the Orators.

The class of 1911 will be graduated with an almost all-Kansas company. The baccalaureate sermon will be preached by an alumnus, Dr. Clement G. Clarke, of Minnesota, and the Commencement day address will be by Dr. Edward Benjamin Krehbiel, of Leland Stanford University, California, who took his A. B. degree at the University of Kansas. Doctor Krehbiel was graduated in 1902. After that he studied at Harvard and the Ecole des Chartes, Paris. In 1906 the University of Chicago conferred upon Doctor Krehbiel the degree of Ph. D.

Doctor Krehbiel is associated with Dr. David Starr Jordan in research work to determine the influence of war upon the races and upon the growth of nations. His first book, "The Interdict," is an interesting and valuable volume. Doctor Krehbiel is to speak Thursday morning, June 15, in the Auditorium upon "America's Second Opportunity."

Dr. David Starr Jordan, president of Leland Stanford University, was the original Commencement speaker. He had accepted President Waters' invitation and had sent an advance copy of his proposed address upon "The Waste of War." Within a few days of this acceptance President Jordan became ill and was obliged to go to a hospital. His condition is not dangerous, but it caused the canceling of all speaking engagements.

CREDIT TO THE ORATORS.

An Honorary Debating Society Has Been Authorized by the Faculty.

An honorary debating society has been authorized by the faculty of the agricultural college. Heretofore debating societies have received little credit for the excellent work done; now the faculty has agreed to give deserving members of the proposed society collegiate credit; and the membership will, of course, be based upon merit.

"There is more honor for the college in winning a debate," said President Waters, a day or two ago, "than in winning a football game. I desire, very much, to see this new organization succeed. The faculty should do everything possible to encourage it.

Every department head should induce his students to work for a membership, and also, he should do all he can to encourage the young men to speak in public. It is quite an accomplishment to second a motion and tell why you do it, without stumbling and forgetting your words or purpose."

To be eligible for membership the applicant must have won a place on the intercollegiate debating teams, or have represented his society in an annual oratorical contest. These places must have been won by a preliminary contest.

"The new club will be strictly an honorary organization," said J. E. Kammerer, director of public speaking. "However, the awards of this club will not be honor alone. It will have the power to confer the 'K' on the members. Members also will receive credit in the college for a subject of four hours for one term. This subject must be either in the English or public speaking departments."

As soon as membership is established the club will organize and obtain rooms on the campus, where it may keep a reference library.

Choose always the way that seems the best, however rough the way.—Pythagoras.

Mixed Flowers.

It is wiser, if you care at all for the uniformity of color of your garden, not to buy your seeds in mixed packages. A mixed package usually contains every color in which the flower grows, whereas three or four packages of plain colors would give you sufficient variety and yet insure harmony of shade.—Philadelphia North American.

TO THE ALUMNI.

Don't Forget to "Come Back" to the College Commencement Week.

You got your start in the college that fitted you for life and its work. You are living for your community—just what you were educated to do. You are farming as you were taught to farm, and maybe you are aiding the college to determine results in its most important experiments. By your example it is proved that a vocational education pays. But you are still in debt. You owe the college.

The college needs your influence at home. The students now at the college need your encouragement. The student just graduated should never feel that he has joined a body of unknowns.

One of your number occasionally drops back on the campus and views the stone you left in some ivy-clad building. That is his or her definition of patriotism. But it is not enough.

If you had been in the Spanish-American war or the Mexican revolution, the chances are you'd set aside business every year to travel to a distant reunion and tell over and over how you shot a hole through someone or burned a house or "foraged" for chickens inside the enemy's lines.

Don't you owe that much loyalty to the big institution that showed you how to live, how to earn a living, how to do things worth doing? You surely do.

The defense commonly offered is that you have nothing for which to return. There is no great occasion which demands your presence; no tradition, no custom to endear you to your Alma Mater. Your education, you say, was practical, and you are doing practical things.

Fine; but don't forget, Mr. Alumnus, that you shouldn't be so practical and businesslike in one respect and so impractical and neglectful in another. It's as much to your interest to be in Manhattan for Commencement as it is for you to advertise your goods.

Come back to the old campus, Mr. Alumnus and Mrs. Alumnus and Miss Alumnus. Visit the old places, meet old friends, talk over old times and, perhaps, put in a few good, cheerful words for the youngsters just throwing away their books. Moreover, you should acquire the habit of coming back to the college. It's one habit you won't have to break.

THEY ATE IN LOVERS' LANE.

The Manhattan Alumni Had Its Annual Feed Tuesday; A Gipsy Supper.

Members of the Kansas State Agricultural College alumni of Manhattan had their annual picnic in Lovers' Lane May 30. About 125 persons were present, counting the second generation. A gipsy supper was served. The new officers elected for the coming year are: Dean Webster, '96, president; C. A. Kimball, '93, vice-president; Mrs. Helen (Knostman) Pratt, '01, secretary; O. H. Halstead, '95, treasurer, and C. M. Breese, '87, member of the local association on the board of general directors.

German Club to Give Play.

The German Club will give an entertainment Friday, June 9. During the first part of the evening songs and readings will be given. Part two will be a play, entitled "Puppy Love."

THIS TANK WILL LAST.

IT IS MADE FROM CEMENT AT A COMPARATIVELY LOW COST.

One of These, in Kansas, Holds Water for Sixty Cows—Directions for the Construction are Very Simple.

You can make an everlasting water-tank of cement at a comparatively low cost. Frost will not injure it if it is made right. A tank 6x16 and three feet deep is large enough to hold water for sixty cows. On one farm in Kansas such a tank has given good service for years.

Three men can make this kind of a tank in one day, after the sand and cement have been hauled. Excavate about four inches deep for the foundation. Put one or two inches of crushed rock in the bottom. The frame for the side may be made from old lumber. The better this fits together the more it will improve the appearance of the tank when finished. It must be braced firmly inside and outside. Then put in the mixture of sand and cement in the proportions of three sand to one cement. Use Portland cement.

SIX INCHES THICK.

The sand need not be screened if it is not too coarse. For a tank of this size, it takes about twenty sacks of cement and four loads of sand. Wire netting makes very good reinforcements, but gas-pipes or iron rods would be better. The sides may be tamped a little to make them fill out the frame well. The sides of the tank should be about six inches thick at the bottom and four at the top. Make the outside perpendicular and the inside sloping. It should be five feet wide at the bottom and five feet four inches at the top. This will keep the cement from cracking when the water freezes.

MAKE IT IN A DAY.

After the sides have been made, fix the bottom. This should be made two inches thick without the crushed rock. Coat the tank with pure cement, making it more impervious to water.

The tank should be made in one day so that it will join together well. Make it a little lower at one end and put a two-inch pipe through the wall at the bottom. This will be a help in cleaning. The overflow should also be placed at this end.

Storage tanks are good also as a source from which to irrigate gardens. A tank 16x16x4 will hold enough water to irrigate a good-sized garden. This would require about thirty sacks of cement. It could be made in one day by four men.

A SPEAKER FROM M. S. U.

Prof. Martin, of the School of Journalism, Will be Here June 7.

Students of industrial journalism are to hear an address Wednesday, June 7, by Frank L. Martin, professor of journalism in the Missouri State University at Columbia. Professor Martin formerly was a reporter and later an editor on *The Star*, Kansas City. He has been in the Missouri State University about four years.

The plan now is to have Professor Martin speak for a few minutes in chapel and, following the usual custom, to assemble the students of industrial journalism in room 55, Kedzie Hall, at 11 o'clock for the formal talk about the subjects in which they, especially, are interested.

Professor Martin is an alumnus of the University of Nebraska. His long service on *The Star* and other papers qualifies him to speak authoritatively and interestingly of this branch of work. His talks always are extremely plain, matter of fact, but very valuable discussions which no student should miss if he intends to write.

THE KANSAS INDUSTRIALIST

Issued weekly during the college year by the Kansas State Agricultural College, Manhattan, Kansas.

PRES. H. J. WATERS Editor-in-chief
PROF. C. J. DILLON Managing Editor
DR. J. D. WALTERS Local Editor

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The typesetting and other mechanical work is by students in the school of printing, of which J. D. Rickman is superintendent. Both these departments are in Kedzie Hall.

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SATURDAY, JUNE 3, 1911

INTENSIVE AGRICULTURE.

An experiment of more than ordinary interest to agriculturists everywhere is about to begin near Port Jefferson, L. I., in what has been called "vegetable manufacturing." It has been successfully tried out in France. In this instance fourteen acres have been bought. One acre, says the *Christian Science Monitor*, is to be roofed with a combination of glass and wood. Heating, watering and fertilizing will be artificial. Plants are to be kept growing in semi-darkness at a temperature of about 40 degrees. When it is necessary to ripen them they will be subjected to a temperature of about 60 degrees. Under this system it is believed to be possible to mature strawberries and other small fruits and vegetables at a time of year when the market is most favorable. For instance, strawberries may be supplied to the New York market in December.

If the experiment shall prove as successful as expected the additional acreage, of course, can be covered in. In other words, the capacity of the plant can be increased. In the nature of things, the operation of such an industry will be expensive. It will require the service of a large number of skilled hands. Skill and equipment will be the leading factors in its operation. The institution to be successful must be operated with as much system as any other manufacturing establishment. It will differ from a fabric factory in that it will turn out eatables rather than wearables. Its products, for obvious reasons, will appeal only to those who may indulge in luxuries. They are not expected to contribute to the lowering of the high cost of living. At least, not for the present. But the experiment and its outcome are, nevertheless, matters of deep importance to all. Even if complete success, commercially and agriculturally, may not be at once attained, the step points to the growth of man's dominion over the soil.

Less complicated is the open-air system of intensive farming practised in many parts of Europe and in Japan for several years. If adopted generally in this country it would multiply the present acre yield. It is being adopted by gardeners in the environs of nearly all the great cities. In view of the results achieved by following the new process, it is certain that American farmers will not be slow in adopting it. The average yield of wheat in the United States, as shown by statistics of the agricultural department, is less than fourteen bushels to the acre; in Germany it is twenty-eight bushels and in England thirty-two bushels. In this country the average yield of oats is thirty bushels to the acre; in England it is nearly forty-five and in Germany over forty-seven. These and other results are achieved abroad in soil that has been cultivated for a thousand years, demonstrating that it is the intelligence the husbandman puts into the land, rather than the land itself, that bears fruit.

In open-air intensive farming all may take a hand. It can be practised

as well on the back lot of a city or suburban home as in the rural districts. It literally means making two blades of grass grow where one grew before. Or, to put it in another way, it means forcing the soil to do its work. And, more than all, it seems to point to a way whereby humanity may be relieved from perpetual discussion of the cost of living and enabled to turn its thoughts to higher things.

THE CROSS-ROADS STORE.

Cross-roads country stores, in these days of motoring parties and endurance runs, are popular places—if the storekeepers only knew it. A car filled with hungry and thirsty motorists, spinning along a dusty country road at noon, rounds a corner and almost passes through a village before the driver can throw on the brakes.

"General Store," in big letters over a little frame building, suggests a haven to the tired tourists where all wants may be satisfied. So into the shop the city folk go with visions of a good lunch and a cool, refreshing drink of something—it didn't make much difference what.

"How lucky," they say to one another, "to find this place just at noon." But the congratulating was done outside the "store." Inside all was bitter, keen, dry, hungry disappointment.

That part of the room not given over to the post-office and a huge heating stove surrounded by a half-dozen chairs and empty goods boxes—undoubtedly, the tariff had suffered here the previous winter—was occupied by a counter of overalls, a few shelves of calico, and a collection of alleged groceries.

But the point is this: There wasn't a single, solitary thing in that store that would make a lunch for those tourists. Not even a chunk of bologna, though he had had some of that the day before, the storekeeper—postmaster—justice of the peace said, by way of consolation.

Why don't cross-roads country storekeepers have something to eat in their shops—something for the strangers who come down the road? Wouldn't it be possible to move the prune barrel and binding twine down far enough to make room for a small glass case in which some good food could be kept away from flies and dust? A traveling public would cheerfully pay hard cash for such goods.

H. D. S.

WHEN THE HARVEST DAYS.—

Why do the farmers have so much trouble every year in getting, or trying to get, men for the wheat harvest? Better still, why should they not have trouble to get the men? Is there any reason on top of this beautiful and fruitful earth why men should be loitering about for eleven months for the pleasure of working four weeks—or less—in the wheat harvest?

This is a high-pressure age. Men who amount to anything, who have brains enough to swing a hammer or dig a post hole do not need to be idle a day. Only vagabonds, otherwise called hoboes, play truant, these days. And if this be true, which, in the words of Theodore Roosevelt, "it must be," what sort of work can a farmer expect from a tramp? There is some excuse for an enlisted man, but absolutely none for the man who shuffles along through the world doing nothing for himself or for any one else.

If Kansas farmers insist upon growing "bumper crops" they must expect to have the annual disturbance in getting help to gather them. They might organize a holding company and employ laborers by the year and keep them on the go between this state and Argentina, or other Southern Republics, upon a schedule that would have them here when they are wanted.

Another way to get help for harvest time is to pay more, feed better, and give a little attention to the ethics of human kindness.

DO MEN NEED ADVICE?

Do men care for advice? Newspapers are filled, nowadays, with advice for women. Women have read so much about "what they

A GOLDEN TEXT.

And he shall judge among many people, and rebuke strong nations afar off; and they shall beat their swords into ploughshares, and their spears into pruninghooks: nation shall not lift up a sword against nation, neither shall they learn war any more. —Micah 4:3.

should do" that they have become tired of it; and have cast it aside. Give the women a rest, and tell the men a few things.

You scarcely pick up a magazine that does not have a corner for women, telling them how to dress, how to care for children; the new styles of hair dressing, and so on. It is just as essential that men know how to dress neatly and correctly, without learning it from their wives or their tailors. They fill an important place in their homes. Why, then, do they not have the same chance as women of learning how to fill their places properly and pleasantly.

Men are out in the world, and have more temptations, and many problems to solve, and they should naturally have much advice. Many of them need it, some more than others.

Some persons insist that women are more alert to learn; but that is not true. It is because men are not getting enough advice of the right kind.

L. C.

GOOD BUYING.

In the Kansas high schools domestic economy classes are intended to teach students how to buy. A great deal of attention is to be given this point, because it has already been determined that it is ignorance of the art of buying that contributes as much as any other factor to the extravagant conduct of American homes. If the same amount of satisfaction can be obtained from articles of food that cost anywhere from 50 to 75 per cent less than other articles, it is extravagance to indulge in the more costly kind simply because it costs more. For example, the mere act of cooking gives value frequently to certain kinds of eatables. Thus, we are assured, it is held by the Kansas authorities that while a cut of sirloin costing 22 cents a pound is more palatable than a cut of beef shoulder costing 12 cents when both are cooked in the usual manner, yet there is a way of cooking and serving the shoulder which makes it equally as tender and palatable as the sirloin. So that the good buyer at the head of the household should be also a good cook, and for this reason good cooking is to be taught with as great care as good buying in the Kansas schools.

INSURANCE LOANS.

A summary of the reports of several of the largest life insurance companies shows they have farm mortgage loans in thirty-three states for \$238,126,671. Iowa leads with \$32,369,621; Illinois is next with \$28,868,421, and Missouri is third with \$26,901,132. Minnesota, Kansas, Nebraska, and Ohio each has over 14 million dollars of life insurance farm loans.

SPOTS VANISH.

Here is a glove hint which is vouched for as excellent in its effects: Procure a tin box or a jar, with a tight, close-fitting cover, and place in the bottom a quantity of lump ammonia. Then suspend the gloves in the box or jar, close it tight, and allow it to remain this way four or five days. At the end of this time remove the gloves, and every spot will be found to have vanished.—*Louisville Herald*.

MURDOCK AT \$9 A WEEK.

A little book titled "Heroes of Insurgency" tells of Victor Murdock's newspaper experience. He married before he was twenty and at once asked his father for a raise in salary: "You are paying your bookkeeper \$22 a week, while I, a literary man, am compelled to support myself and wife on nine paltry dollars. It isn't fair." His father tried to show him that the bookkeeper was a man of parts, a necessity, that it would be difficult to get another like him, while

reporters could be picked up by the gross. He was perfectly willing to assist his son, but thought it poor business policy to pay him more than \$9 as a reporter. Thinking his literary abilities were not appreciated at home, young Murdock went to Chicago. Murdock at once got a job at \$22 a week. He made good on the Chicago papers and was rapidly advanced. About three years later his father welcomed him home and he became managing editor of the Wichita *Eagle*. This author says Murdock's ambition has always been to write a book that will live, or a great play which would command calls from the audience of, "Author! author!"—*Pointers*.

LEFTOVER LAMB.

A good way to use up leftover roast lamb is in a meat loaf. Mince the lamb, add an equal quantity of bread crumbs taken from the soft part of the loaf, and to three pounds of this mixture add an eighth of a pound of salt pork, minced fine; a small minced onion, with sweet marjoram, thyme, salt, and pepper. A little summer savory may also be added. Moisten the loaf with two beaten eggs and some of the gravy left over from yesterday's roast or stew. If no gravy is at hand, a little meat extract diluted with water will do. Let the loaf bake for about two hours in a hot oven. If the oven is very hot it will, of course, be done much sooner, but it is better to cook it a little slowly, so that it will not brown before it is done inside.—*New York Tribune*.

VARNISHED FLOOR.

An expert painter and interior decorator says that when wishing to freshen up varnished woodwork or floors, to take a piece of new cheesecloth about one yard square, dip it in the varnish and squeeze out until you can handle easily. Then go over the woodwork the same as if using a cloth to wipe off. Of course the woodwork or floors should be perfectly clean. It does not take a third of the time it does to use a brush and the finished work looks equally as well, says the *Denver Times*. It does not, of course, put on as heavy a coating of varnish as when using a brush, but being so much easier to do, one can afford doing it oftener.—*Christian Science Monitor*.

Pen Points.

The Durocs owned by the department of animal husbandry in the Kansas State Agricultural College have the record this spring for large families. The books give these hogs credit for ten and three-tenths pigs. The Berkshires are close seconds, with a record of nine and eight-tenths. Twenty-nine sows—all kinds—averaged eight and eight-tenths. Taken individually, the Berkshires are making the better record, as there are fifteen of their breed and only eight Durocs. The Fort Hays Station reports twenty-five Durocs giving an average of eight pigs.

To Tighten Joints.

When the rounds of a chair have become loose or have come out, secure from your hardware store a little tube of wood glue. Place the glue in the joint to be mended. Get your clothes line (it need not be cut in two) or any strong cord or small rope and tie it around the chair. Then take a small stick and twist it until it is tight. Set the chair away a day or two for the glue to set. Upon removing the rope the joint will be as good as new. The little device holds the parts very firmly, which is the secret of mending furniture, and any home has a clothes line and a little stick.

Keep Piece Bag.

If you will keep a "piece bag" full of scraps of silk, lace, velvet, beading, etc., you will never be at a loss for material for bows for the evening slippers.—*New York Press*.

If paint spots stick to window panes, do not use a knife to loosen them. A cloth wet in hot vinegar will clean them perfectly.

In June.

No hope, no change. The clouds have shut us in.
And through the cloud the sullen Sun strikes down.
Full on the bosom of the tortured Town.
Till night falls heavy as remembered sin
That will not suffer sleep or thought of ease.
And, hour on hour, the dry-eyed Moon in spite
Glares through the haze and mocks with watery light.
The torment of the uncomplaining trees.
Far off the Thunder bellows her despair
To echoing Earth thrice parched. The lightnings fly.
In vain. No help the heaped-up clouds afford.
But heavier weight of burdened, burning air.
What truce with dawn? Look, from the aching sky
Day stalks, a tyrant with a flaming sword.

—Rudyard Kipling.

SUNFLOWERS.

Variety of interest in the things of life is mother to contentment.

"I beg your pardon," said John R. Walsh, the banker, to President Taft. "Don't mention it," said the President.

The elephants in the New York zoological garden, it is reported, ate out of President Taft's hands. Is this a knock on the animals?

The bands will bray and the trumpets blare and the cannons roar and smoke, and a lot of yap Americans will hurry home dead broke.

Topeka now wants to tax its streetcars and poles. Strange how long it takes for some towns to learn a lesson. And Kansas City so near!

"The Chester Avoids Bars," said *The Star*, a few days ago. Very proper, indeed. It is to be hoped the crew will do the same while in town.

Mrs. Marye Hood Arnold Tanner Peel's new husband is reported by *The Star* as having "worked at odd jobs." He now has the oddest job of all.

A coronation hymn has been written by the Dean of Westminster. We'd prefer to read a silo bulletin by our dean of agriculture, if it's all the same.

The coronation will not be reported in THE KANSAS INDUSTRIALIST, but the paper will carry a full and authentic account of the latest and most economical way to build bridges and roads.

The state convention of druggists met in Topeka last week. This organization is affiliated with the national association. Its sole purpose is to discuss social matters. The members say so.

A scientist in London says the white race will disappear, eventually, and its place be taken by the negro people. The one satisfaction in this is the fact that it will solve the servant problem for the whites.

And now, gentlemen, it is said Manuel of Portugal may be restored to office. Manuel, you may remember, is the person who left his things on the floor the night a lot of republicans ran him out of Lisbon.

It's all very fine to talk about patriotism, but what ineffable joy it must have given Madero to ride into the capital of Mexico, the victor over the half-breed President who once threw him into prison because he had run for office!

After an all-night conference, Charles Schwab testified, a lot of corporations emerged in the dawn of a cold morning as the United States Steel. We move to strike out the words United States and substitute therefor Barefaced.

Word comes from England that gasoline may now be bought in tabloids. Enough may be put in a little box to propel a car 1200 miles. The point in which we are interested is this: Can the oil be deodorized?

If it isn't asking too much, will someone please say what Adolphus Busch has done to "Promote Germanic Culture in America?" The kaiser has just decorated him with some kind of a garter, and gives the foregoing excuse for doing it.

When the Kansas City *Star* starts after a thing it never lets up. For instance, it has for years urged paving. Only a day or two ago it ran a river story about the new steamer under this head: "Paved the Way for the Chester." What d'you think of that? With paving on the river and Sieben to sweep it, Kansas City should prosper.

ALUMNI NOTES.

Fred Schreiner, '10, is visiting college friends this week.

Pearl Holderman, '03, was visiting friends in Manhattan last week.

Miss Odell Wilson, '09, of Harper, Kan., is here taking special work.

Sarah Hougham, '03, assistant librarian in the University of North Dakota, will be here Commencement week.

O. E. Noble, '97, and Bessie (Lock) Noble, '98, came to Manhattan last week from Hobart, Okla. Mr. Noble has been appointed city engineer.

J. N. Bealey, '06, and Louise Ochse, of Seneca, Kan., were married May 9 at the home of the bride's parents. Mr. Bealey is farming near Wheaton, Wyo. He has grown successfully alfalfa, small grains, and potatoes. The couple visited the college Tuesday before going to Wheaton.

The Eastern Alumni Association of the Kansas State Agricultural College gave its annual dinner at the Hotel Chelsea, New York City, Saturday evening, May 20. About thirty members were present. Here is the program: Vocal solo, Henrietta M. Hofer, '02. R. R. Rees, '85, congressman from the fifth district of Kansas, spoke on the Kansas State Agricultural College in politics. Florence R. Corbett, '95, told of what the women graduates of the college have done besides being most excellent housewives. Lyman H. Dixon, '88, talked of the place the graduates hold in art. After a song by Mrs. Christine (Hofer) Johnson, '02, and Miss Hofer, the guests joined in singing "Our Alma Mater." The officers elected for the following year are: Florence R. Corbett, '95, president; J. B. Dorman, '96, vice-president, and Henrietta M. Hofer, '02, secretary-treasurer.

CHICKENS—CHICKEN-POX.

Some Authentic Advice on How to Treat the Disease.

Chicken-pox, sometimes called Sore-head, is a disease which will be prevalent at this time of the year among the growing stock unless proper precautions are taken. It is a contagious disease, and spreads very rapidly among the flock when it once gets headway. It seems to affect the cockerels more than the pullets. Because of its appearance on the comb and face of the bird it should not be a difficult matter to eradicate the disease.

Symptoms.—The disease appears on the comb, face, and wattles of the bird in the form of yellowish nodules, varying in size from a pin head to one fourth of an inch in diameter. These nodules increase in size and turn dark red. The disease should be treated as soon as the first nodules are noticed. It is not always fatal and fowls have been known to recover without any treatment. Insanitary conditions and dampness seem to cause the disease.

Treatment.—As it is a contagious disease, the affected birds should be removed from the flock immediately. If the nodules are removed with a sharp knife, and the affected parts are treated with carbolated vaseline, the birds should recover in a few days. If the case is very far advanced the sick fowls should be given a few grains each of sulphur and cream of tartar three times a day, and oxide of zinc ointment should be applied to the affected parts twice a day. The latter treatment is recommended by Doctor Lehman, and has proved a satisfactory remedy.

MONEY IN BABY BEEF.

Realize the Profit From Your Capital as Soon as Possible.

Realize the profit from your capital invested in beef as soon as possible. The quickest returns are from baby beef. More beef can be produced from young cattle than from older ones, with the same money.

Calves make more gain with a given amount of food than does older stock. The cost of 100 pounds' gain in calves is about \$4.10, while it is nearly \$6.60 for two-year-olds. It requires fifty

per cent more food every year for a given increase in weight than it did the year previously.

The price of small cattle of high finish is practically as high as that of larger and coarser ones. A baby beef is a calf not more than eighteen or twenty months old and weighing not more than 1300 pounds. It must have quality and be in prime condition.

Baby beef is not more common because stock raisers generally are not stock feeders. For this class calves must be fed grain at least after weaning and, better, as soon as they will eat it. Where dairy is not practiced the calf will have also to pay for keeping the cow a year.

Calves fed on whole milk are the best for baby beef, for they are in good flesh at weaning time.

A good mixture to feed calves is equal parts of bran, ground corn, and whole oats, with plenty of alfalfa or clover hay.

FRANKLINS GOOD SPELLERS.

Boys Did as Well as the Girls in the Recent Contests.

The spelling contests are over for this year and the Franklins have won. In doing so they have partly upset the predictions of many, that the girls would capture the trophy "because girls are always better spellers than boys." The Franklin Society is a mixed society and has about as many boys as girls in its membership. Not only that, but of the thirteen Franklins who remained standing in the final contest, more than half were boys. Furthermore, most of them had gone through the two preceding contests without missing a word.

It is safe to say that most of the participants can now spell practically all of eight hundred words used in these matches. These are the words above all others that they ought to know how to spell, for they are the words they use every day and that they are most likely to have trouble with. Moreover, it is certain that no contestant will ever forget how to spell the word that he missed. If the matches did nothing more than stimulate an interest in creditable spelling, they have been well worth the time and money and the effort expended upon them.

L. H. B.

IS YOUR GRASS HEALTHY?

Here's a Way to Treat Your Soil if it is Sandy.

How is your lawn? Is it thin? If so, there must be a reason. If you live in western Kansas it probably is due to the sand getting so hot as to kill the grass roots.

A sandy soil is one of the most difficult ones on which to grow blue-grass. It is best prepared for growing grasses by a heavy coating of manure, well rotted, and plowed in deeply. Lime should then be applied at the rate of one ton to an acre. If, after this treatment, your blue-grass doesn't grow, try Bermuda grass. This is the advice of Albert Dickens, of the horticulture department of the Kansas State Agricultural College. This grass will not make so beautiful a lawn, but where the blue-grass cannot be grown it can be used as a substitute. The main drawback is that Bermuda grass spreads very rapidly and is likely to encroach upon flower beds and gardens, where it is used on a small lawn. It also is very hard to eradicate.

The Meaning of Chautauqua.

Records in the office of the United States Geological Survey in Washington show the origin of the name "Chautauqua." It is an Indian word which has been the subject of much controversy. Webster says it is a

corruption of a word which means "foggy place." Another derivation gives the meaning as "bag tied in the middle," referring to the shape of the lake. It is also said to mean "place where a child was washed away."

Dr. Peter Wilson, an educated Seneca, says it is literally "where the fish was taken out." Other meanings given are "place of easy death," and "place where one was lost." None of these translations would fit the Kansas county of that name.

NO MORE SECRETS HERE.

NEW RULES PUT A FACULTY MEMBER IN EVERY ORGANIZATION.

President Waters Will Appoint College Representatives for Social and Other Societies—The Power They'll Have.

At a recent meeting of the faculty a new set of rules concerning secret and social organizations was adopted. These provide for a committee on student affairs to consist of five persons appointed by the president: One faculty adviser for secret or social organizations constituted of young men, one faculty adviser for secret or social organizations constituted of young women, one faculty member of the students' council, one faculty adviser for the literary societies, and one faculty adviser for the student body at large.

It was made the duty of this committee:

- To sanction all social affairs of the secret or social student organizations before the same may be allowed.
- To decide whether or not a chaperon may be required in case of a social event participated in by such organizations, and to approve the chaperon.

A LIST OF MEMBERS.

3. To require each secret organization to furnish a list of the members of the organization and a set of rules governing the conduct of their organization and to pass upon the same.

4. To pass upon the eligibility of candidates for membership under these rules.

Concerning the pledging of new members, it was prescribed that beginning with the fall term, 1911, no student may be pledged for membership in any secret organization until he shall have been in actual attendance at the college at least one full term and with rank of freshman or above; and beginning with the fall term of 1912, no student may be pledged for such membership until he shall have attained the rank of sophomore and have been in regular attendance at the college at least one full term.

No student may be pledged for membership in such organizations unless during the previous term he has passed in at least seventy-five per cent of his assigned work. And in order to retain good standing in a secret organization, every member shall maintain a rank as student which is satisfactory to the committee on student affairs.

THREE SOCIAL RIGHTS.

Social functions given by or participated in by the secret or social organizations of students shall be limited to Friday, Saturday, and Monday nights.

All the foregoing rules governing social affairs shall apply to all college organizations while acting in a social capacity. And any organization failing to adopt and comply with these rules shall be disbanded.

In addition to the above general rules, it was also specifically provided that all student gatherings in the nature of picnics, country parties, hay-rack rides, steak roasts, public dances, and the like shall be under the supervision of the committee on student affairs. The students of the college are counseled against attending dances or other social functions that are not under the supervision of this committee; and the college reserves the right positively to forbid students to attend such functions whenever it may seem wise to do so.

THE MONEY'S IN MUTTON.

Anyway, Wool Has Not Returned the Profits in Kansas Flocks.

The best sheep for any state are those that will bring the producer the most money for his labor. Experience has shown that sheep reared in Kansas for their wool alone are not so profitable as the sheep reared for mutton. Yet if you can get a variety that produces good wool in a fair amount, and at the same time one that is good for mutton purposes, you would be wise to buy it.

Sheep for Kansas have been arranged according to their value, as

rank one, two, three, and on down, rank one being the best, rank two the next best. The Shropshire sheep have been placed rank one, the Hampshire rank two, the Southdown three. The Dorset ranks fourth.

The Shropshire sheep are prolific breeders. They have heavy fleece and are good mutton producers. The Hampshires are not such good rustlers and do not produce so much

Men hurry to and fro in search of truth and are unconscious that it shines over them with the luster of a fixed star if they would keep silent for a little and let the air clarify itself and the heavens become visible once more.—*Hamil-ton Wright Mabie*.

READ IT IN 91 HOURS.

THAT IS THE BIBLE RECORD OF THE REV. JOHN T. COBLEY.

Moreover, the Old Minister had a Schedule for Every Chapter—John II and III Are a Tie.

It didn't bother the Rev. John T. Copley, of Manhattan, to read the Bible. He did it in 91 hours and 15 minutes—including the "begats." Here's the schedule upon which he worked; anyone is at liberty to try it for himself:

OLD TESTAMENT SCHEDULE.

Books.	Hrs. Mins.	Books.	Hrs. Mins.
Genesis....	4 16	II Chronicles.....	2 55
Exodus....	3 39	Ezra.....	0 50
Leviticus....	2 39	Nehemiah.....	1 12
Numbers....	3 48	Esther.....	0 38
Deuteronomy....	3 19	Job.....	2 40
Joshua....	2 9	Psalms.....	6 31
Judges....	2 8	Proverbs.....	2 18
Ruth.....	0 17	Ecclesiastes.....	0 36
I Samuel....	2 45	Song Solm's.....	0 24
II Samuel....	2 18	Isaiah.....	4 8
I Kings....	2 40	Jeremiah.....	4 46
II Kings....	2 32	Lamentations.....	0 28
I Chron....	2 21	Ezekiel.....	4 19
Daniel....	1 19	Hosea.....	0 34
Joel....	0 13	Amos.....	0 28
Obadiah....	0 4	Jonah.....	0 9
Micah....	0 20	Nahum.....	0 8
Habakkuk....	0 11	Haggai.....	0 7
Zephaniah....	0 11	Malachi.....	0 12
Zechariah....	0 41		

Old Testament: 71 hours, 4 minutes.

NEW TESTAMENT SCHEDULE.

Books.	Hrs. Mins.	Books.	Hrs. Mins.
Matthew....	2 47	Philippians.....	0 15
Mark....	1 49	Colossians.....	0 14
Luke....	2 54	I Thess.....	0 13
John....	2 4	II Thess.....	0 7
The Acts....	2 52	I Timothy.....	0 16
Epistle.....	1 5	II Timothy.....	0 11
I Corin....	1 1	Titus.....	0 7
II Corin....	0 41	Philemon.....	0 3
Galatians....	0 21	Epistle of James.....	0 15
Hebrews....	0 50	I Peters.....	0 17
I John....	0 16	II Peters.....	0 11
III John....	0 2	II John.....	0 2
Revelation....	1 20	Jude.....	0 5
Ephesians....	0 21		

New Testament: 20 hours, 11 minutes.

Bible: 91 hours, 15 minutes.

The schedule written by Mr. Copley, many years ago, was found recently in the old Bible he once owned. This Bible he presented to the agricultural college. It is now kept in the office of THE KANSAS INDUSTRIALIST. Mr. Copley may have loped along quickly in his reading; but the chances are that he read the Good Book many times. The idea of reading it is a task to frighten most persons, but it really isn't such a heavy job after all, if undertaken methodically.

It seems strange, too, that the Book upon which rests the hope of the civilized world is such a little volume, comparatively, while the laws of one country would fill a warehouse.

FARMERS WELCOME EXPERTS.

No Longer the Cold Shoulder for Men Sent From the College.

Men sent out by the college to help farmers to solve their farm problems are not getting the "cold shoulder," as in the past. Kansas farmers are beginning to realize that the experiments carried on at the college are of special benefit to them. This, said Dean Webster, in a talk to the agricultural students a few days ago, marks a change in the farmers' view in regard to "book farming."

Cooperative experiments are being carried on with the farmers throughout the state to learn what crops will grow in various parts of the state under different conditions of soil and climate.

Eleven departments of the college are experimenting with animal nutrition, soil fertility, crop improvement, bacteria of the soil, insect and fungous diseases, hog-cholera, blind staggers, and plant breeding.

Other duties have been thrust upon the experiment station, which were not included in the original act. These include the detection of the manufacture of mixed feeds, stallion registry work, and the enforcement of the laws as to feeding stuffs and fertilizers.

Gibraltar may be strong, but ideas are impregnated, and now on the hero their invincibility. —E. W. Emerson.

TO BREAK BROODY HENS.

IT IS NOT HARD IF A LITTLE CARE IS EXERCISED.

Feeding and Housing are the Important Things that Need Attention—Cruelty is Unnecessary, Say Experts Who Know About Poultry.

Breaking broody hens is not a hard task. A little care in the feeding and housing is all that is required. "The old methods of starving, swinging, and dipping them in cold water are cruel and detrimental to the hen's laying ability," says T. E. Schreiner, assistant in the poultry department at the Kansas State Agricultural College.

When a hen first shows signs of becoming broody, it is best to break her immediately. She should be confined in an airy, sunny coop, or pen in the poultry house, but separated from the other hens. Let her see and hear the other poultry. Companionship is very essential in keeping her from being broody and having the "blues." The separate compartment in which she is confined should be large and free of anything with which she could make a nest. A dropping-board is very useful.

HOW TO MAKE IT.

The coop, or box-pen, should have a false bottom made of one-inch slats—spaced one and one fourth inches apart—nailed upon two by four inch scantling placed edgewise. Through these spaces fresh air will circulate and—with the absence of any bedding—the hen can get no warmth. Thus, when she can feel no heat under her body she soon will give up trying to set.

Another benefit derived from the slat bottom is the fact that the hen's feet continually slip through the spaces, causing her much uneasiness and making her restive—the very thing to break her of brooding and trying to set.

FEED THE HEN.

Mr. Schreiner advises feeding a broody hen all she will eat and giving her plenty of water. Discretion should be shown in what is fed. He says that brooding is supposed to be due to a poultry fever and that corn or kafir-corn, being heat-producing, should not be on the hen's diet during the brooding period. Feed a large amount of wheat and oats, and give the hen a small amount of alfalfa meal or other green foods, or millet seeds.

If these precautions are taken when a hen first appears broody, the ailment can be cured in three or four days.

TEN DAYS TO BOOST DAIRYING.

"Biggest Show Ever" Will Promote the Billion Dollar Industry Next Fall.

A ten days' boost for dairying is what the National Dairy Show Association has planned for next fall, October 26 to November 4. The boost is to be a dairy show in Chicago which, if the plans are carried out, will compare in magnitude with the International Live Stock Exposition.

For the cause of dairying, that industry which now has an annual output in the United States of nearly a billion dollars, the National Dairy Show Association has expended \$200,000. And that association compliments itself that it has more than met the expectations of the dairymen and manufacturers of dairy machinery and appliances in making higher and better standards in all that enters into the manufacture and sale of dairy products.

EATS AN ACRE A DAY.

It Takes Lots of Spruce for the Star's Paper Mill.

One acre of spruce every day is required to supply pulp with which to make paper for the Kansas City *Star*. When you think it over carefully, that's a lot of wood. Remember an acre is about 209 feet square. And it takes 450,000 acres a year for the presses of this big country. Any wonder the conservation congress is worked up about the timber supply?

The spruce in this country is being exhausted so rapidly that Canada is

furnishing the bulk of pulp-wood for the United States. These statistics explain the interest being shown in eucalyptus trees as substitutes for spruce. The eucalyptus grows about six times as fast as most trees. Reports from California show that the yield of wood suitable for pulp in ten years is as large as that from the northern pulp-wood forests in from fifty to seventy years. New growth begins at once after cutting. An equal quantity of timber is available in about two thirds of the time of the first growth.

These trees are being grown in California, where it is estimated there are a million acres of land suitable for this purpose. Paper has been made from eucalyptus pulp, but its commercial value has not yet been determined. If experiments now being conducted prove successful, the United States may, some day, produce enough pulp to fill the voracious maw of the hungry press.

AMERICAN HORSES ARE NEEDED.

The Nations Look Upon the United States as a Market.

The demand for American mules and horses is greater than the supply. Even France and England are sending buyers to America. The Boers, in their recent war, learned the value of American mules. One firm has a contract to send them 200 mules. A steamer load of 1400 mules was sent to the Fiji Islands this spring.

The greatest importing countries of Europe are Belgium, Denmark, Germany, Italy, Norway, Russia, and Great Britain. All the leading countries of South America, Central America, and Asia, and the islands of the Pacific and West Indies, as well as Australia, are getting horses from America. The buyers of the most animals the last few years were Canada and Mexico.

In 1910, 28,000 horses were exported, while only 21,616 were exported in 1909. More horses than mules are exported. Not only are draft horses and mules in demand, but England would buy the best carriage horses and Denmark cavalry horses, if the supply were larger.

A RURAL LIGHTING OUTFIT.

Another Set Has Been Received Here for Testing Purposes.

Another rural electric lighting outfit has been received by the electrical engineering department in the Kansas State Agricultural College. It is a direct-connected set furnished by the General Electric Co., Schenectady, New York.

The outfit has a six horse-power, four-cylinder, gasoline engine, of the marine type. To this is connected a three-kilowatt generator to produce the current. Many, in fact most, of the gasoline engines do not run steadily enough to produce the current direct. The voltage varies three or four volts, which is too great a variation. This outfit, being a marine type, is guaranteed to vary not more than three per cent. Tests will be made to find the load capacity, how many lights it will run, and how much other power can be developed, with the machines it can operate.

THE STOCK JUDGING CLASS.

Here is a List Showing the Names of the 10 Highest.

The stock-judging contest in the animal husbandry department, held last Monday afternoon, gave the ten highest men the following ranking out of the twenty-four who entered the contest; the score is the ranking of a possible 800 points:

- J. C. Kinzer, 711.
- A. M. Patterson, 660.
- R. Z. Kerr, 665.
- G. E. Maroney, 633.
- J. C. Holmes, 631.
- Ray Laflin, 629.
- I. L. Fowler, 624.
- R. R. Doddridge, 621.
- G. Hancock, 607.
- H. L. Smith, 596.

Never wrap steel or silver in a woolen cloth. Use soft tissue paper.

GIVE YOUR EYES A REST.

TINT THE WALLS AND MAKE HOME MORE AGREEABLE.

Tan Will do if the Room is Not Well Lighted, but Gray or Blue Are Best Where the Sun Shines.

Who has not felt the irritating effect of the glare of a smooth, glossy, white wall? According to the art department of the Kansas State Agricultural College, there are two reasons for this: Because there are few articles in the room that do not have color, and because there is so much of the wall at which to look that it tires you.

Plain white walls show smoke and dirt, and it is almost impossible to clean them. Tinted walls do not have any of these disadvantages. The finishes with plaster foundation, such as alabastine, are inexpensive, and a fresh application may be put on every season. Painted walls are durable and may be cleaned easily.

If the room is on the north side of the building, or is not well lighted, warm tones may be used. Tan is a good color. In rooms where there is plenty of sunlight, cool colors are better, such as gray, the blues, and blue greens.

Even in tinted walls, there is a glare from the smooth surface. If a rough finish is used, there are so many tiny grains to break up the rays of light that this is overcome, and the effect is more restful. If a little caution is used in the care of the room, the rough finish will not be insanitary.

THE CHORAL PROGRAM.

Don't Overlook the Entertainment, June 14, That Will Really Satisfy.

The Choral Union of the Kansas State Agricultural College will give two concerts Wednesday, June 14. A program will be given in the afternoon, and in the evening Mendelssohn's "Elijah" will be sung, assisted by the College Orchestra. The soloists are well known and are capable. The Glee Club will sing in the afternoon.

THE PROGRAM.

Matinee Concert, 3:30 p.m.
Morning, Noon and Night.....Suppe
College Orchestra.
Meditation, from "Thais".....Massenet
R. H. Brown.
Song of Ossian.....Beschmitt
Glee Club
a. Love Sounds The Alarm.....Handel
b. One Gave Me a Rose.....Schneider
(Dedicated to Mr. Miller.)
c. Krishner.....Branscombe
d. Ecstasy.....Rummel
John B. Miller.
Rhapsodie Hongroise No. 12.....Franz Lizt
Ethel Ping

a. Das Kraut Vergessenheit.....Hildach
b. A Memory.....Barofsky
c. A PastoraleVerocini
d. Lithuanian Love Song.....Chopin
e. Three Blossoms Grew.....San Souci
Mabel Sharp-Herdien
Duet from Hymn of Praise.....Mendelssohn
Mrs. Heidien and Mr. Miller.
Miss Ada Baum, Accompanist.

The evening concert: Mendelssohn's "Elijah," by the Choral Union, the College Orchestra, Mrs. Mabel Sharp-Herdien, soprano; Mrs. Grace Brown-Slack, contralto, John B. Miller, tenor, Olof Valley, basso. Miss Mell Hutto, accompanist.

Mrs. Mabel Sharp-Herdien, soprano, is well known in the musical world. She has sung before some of the best musical clubs of the country.

John B. Miller will sing the tenor solos. He sang the Messiah in 1900 with the Apollo Club, of Chicago.

Mrs. F. H. Slack, has received much praise for her singing. She will sing the soprano solos of "Elijah."

V-Shaped Dishes.

Round traps with high borders, into which fit several V-shaped dishes of dainty china or glass, offer an idea for serving desserts of nuts and raisins or for sweets at a luncheon. They look very pretty in the tray and are easy to serve.—*Christian Science Monitor*.

Nickel Cleaning.

For cleaning nickel on ranges, dip a piece of newspaper in clear boiling water and rub the nickel until dry.—*Philadelphia Public Ledger*.

A Summer School

AT THE

Agricultural College For the Teachers

Summer Term begins June 15 and ends July 27

Agriculture, Manual Training, and Home Economics

The legislature passed a law requiring all grade and rural school-teachers to pass an examination in elementary agriculture. This law will become effective June 1, 1911.

If you expect to teach school it will pay you to invest your spare time, and the small amount necessary to equip yourself properly, in the vocational subjects required by the new law.

The Courses Offered

Domestic Science.—Food Preparation. Class work 5 hours, laboratory 10 hours per week. Attention is given to method of presentation of domestic science in grade and high schools; to the application of general principles of teaching to the teaching of domestic science; to the planning of courses and equipment of laboratories.

Domestic Art.—Hand and Machine Sewing. Class work 1 hour, laboratory 14 hours per week.

The primary steps of hand-sewing are carefully observed. This knowledge is then applied in the making of a plain or fancy sewing bag, hemstitched towel, scarf or lunch cloth, an apron, etc. The hand work is followed by practice in taking measurements, and instruction is given in drafting patterns, and making garments by machine. Lectures are given on the history and process of manufacture of the materials used in sewing.

Manual Training.—Woodwork for the grammar grades; woodwork for the high schools; forging; molding and foundry practice; machine-shop work; manual training for primary grades.

Drawing.—Freehand, object, color and design, and mechanical drawing.

Elementary Agriculture.—This course is planned primarily for teachers in the rural and village schools. The subject-matter is selected and the work presented with this end in view. The course covers a year's work in elementary agriculture for the rural and village schools. All laboratory work will be presented in such a way that it can be adapted to the needs of the individual teachers. This course is especially adapted to prepare the teachers to meet the requirements of an act of the last legislature, which requires teachers to take an examination in the elements of agriculture. It includes a study of farm crops, live stock, poultry, farm forestry, soils, agricultural botany, and plant propagation.

General Science.—This course covers economic entomology and zoölogy, chemistry, elementary physics, electricity and light, vocational education, rural sociology, methods of teaching.

Educational Excursions

The College has planned excursions under the leadership of experts to the experimental fields, the stock feeding yards, dairy and poultry barns, the gardens, orchards, the tree-planting plots, and the hog-cholera serum station.

Expenses

The only fee charged by the College will be the regular incidental fee of \$3.00, which the State law requires to be charged of all students who are citizens of Kansas. Nonresident students will be charged a fee of \$20.00 for the first term and \$10.00 for each term thereafter. Board and room may be had for from \$4.00 to \$5.00 a week.

For further information address

H. J. Waters, President
Manhattan, Kansas

WOULD YOU BE COOL?

Then Dress in Green, Blue, or Violet in Hot Weather.

In hot weather anything that suggests coolness will tend to make you feel cooler. You will find this idea carried out in homes where heavier furniture and decorations are put away in the spring and lighter, cooler ones are used during the hot months.

In carrying out this same idea of coolness in summer dresses you will find colors divided into warm and cool colors, and all vary in warmth and coolness in proportion to the amount of black or white used in them.

Although it is true that all colors mixed with white are cooler than those with black, it is not true that all colors mixed with white are equally cool. A tint of red is much warmer than a tint of blue or green, and a tone of yellow blue than one of green blue.

Red, orange, and yellow are the warm colors and are most pleasing in cool weather. Green, blue, or violet are the generally cool colors, and tints or combinations of tints of these are suitable for summer dresses.

Buttonhole Edge.

When you are embroidering a flannel petticoat with a scalloped and buttonhole edge, do not buttonhole at the extreme edge on a single material, but make a good hem and do the scalloping near the top or middle of this, says the *Washington Herald*. Wear the petticoat thus embroidered, and when the bottom becomes worn cut it away and leave the scalloped, button-holed edge fresh and new, to take the wear.

Always sift all flour before using. Sift a small quantity to keep on hand in case of emergency.

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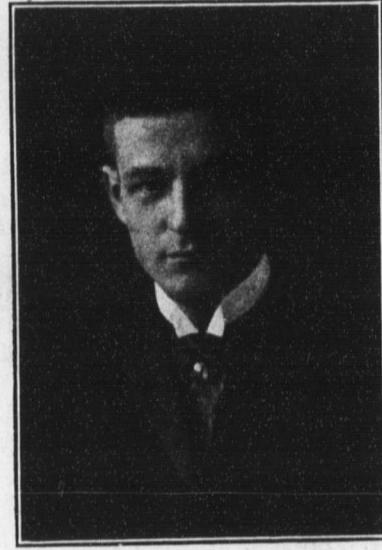
Number 36

PEACE HAS ITS HEROES.

DR. E. B. KREHBIEL'S COMMENCEMENT DAY PLEA FOR DISARMAMENT.

Three Thousand Persons Heard the Californian's Arguments for International Arbitration—More than 200 Graduates.

Seventy-two per cent of the revenues of the United States are used to support the army and navy and provide armament! The weapons of 1900 are forty times as effective as those of 1870. If the Franco-Prussian war were fought now, more men would



Dr. E. B. Krehbiel.

be killed than were engaged in that conflict. For 250 years Japan had no war, and when it did finally have one it whipped one of the richest and most powerful nations: Russia.

Students graduating from a great agricultural college presumably leave there upon peaceful missions, but Dr. Edward Benjamin Krehbiel, of Leland Stanford University, Commencement day orator for 1911, justified himself in presenting the foregoing information about war by declaring that these students are the future leaders, and these leaders must have a mighty part in shaping the future of America.

If earnest attention were evidence of interest, Dr. Krehbiel's address was not wasted. The graduates and the 3000 persons in the audience gave it the closest possible consideration. He spoke for about one hour. After this the glee club sang Handel's "Holy Art Thou," and in a few minutes the diplomas were being distributed. Every division was applauded, but the heartiest ovation was accorded the girls from the home economics course. It was noon when the morning's exercises were ended.

Dr. Krehbiel is an exceptionally forceful speaker. This distinction he achieves by reason of facts well marshalled and figures carefully grouped for instant understanding. "America's Second Opportunity" would, ordinarily, be distinctly heavy for a hot June morning and 3000 persons, but Dr. Krehbiel presented it so attractively that he kept his audience with him throughout.

Dr. Krehbiel said America's first opportunity came—and was accepted—when government by the people was undertaken. The correctness of this judgment had been admitted by the world. The second opportunity was in the universal demand for arbitration to abolish war.

"Through the sacrifice of life," Dr. Krehbiel said, "war does not of choice destroy bad men, but good

men ever—it is the strong young men who go to the front, and are killed or maimed. Can a race avoid deterioration if it is deprived of its healthiest blood? Biology replies in the negative; and the history of France during and after the Napoleonic wars confirms the tenets of biology.

"In the second place, the costliness of wars and armaments has begun to militate against them. The implements of war are more expensive to-day than ever. But as long as the present system prevails no nation can afford to be without the latest and the best equipment. The greater the strides of science and invention, the greater the cost of armaments. This unhappy condition is aggravated by the fact that the system of compulsory universal service is being more and more generally adopted by the countries of the old world, and that the peace footing of the armies of all nations is steadily increasing. Is it then to be wondered at that nations are debt-ridden and are seeking new sources of revenue; or, that in seeking an improvement of their financial situation they should demand a means of reducing their armaments, and, therefore, some peaceful means of settling their differences? The expense of armaments and war gives strength to the peace movement."

AS TO PEACE.

The peace movement, Dr. Krehbiel said, does not get its strength solely or even primarily from the costliness or deadliness of war. Its chief strength lies in that it is the natural product of the evolution of society, of history. Furthermore, the study of history puts it beyond all doubt that the peaceful pursuits of men have, from the beginning, been playing an ever more important role, and that martial interests have correspondingly decreased. In primitive society the natural condition was one of war—every man's hand was against his neighbor.

"Now," he continued, "if men have in the past steadily organized into larger units and have, in the process, blotted out strife within the boundaries of those units, what right have we to suppose that this process will not continue in the future? International law has acted as an ever-widening bridge between nations. Nations indeed are, theoretically, not bound to accept this law; in fact, they are daily becoming more subject to it, for public opinion is constantly becoming more powerful, and nations more subject to public opinion. Public opinion, however, is the fruit of democracy. Democracy is no longer national; it is daily becoming more international. Improvements in transportation and communication have cast the world into a smaller mould. The average American is now more in touch with China than the New Englander was with the Virginian in 1789, and he probably understands him as well as our forefathers did each other. On every hand there are evidences that each nation is getting into touch with every other, of international democracy. There is little doubt that the peace movement has come to stay.

"What is needed is a leader, a people which shall boldly avow its full and implicit belief in the ideal of universal peace, and act accordingly. The nations of the old world, bound up in long-standing rivalries and in the prevalent militarism, cannot as-

(Concluded on page 3.)

THE CHURCH CAN HELP.

BUT RURAL LIFE, IT IS SAID, NEEDS MORE THAN THIS.

American Farmers Must Acquire Leadership, Cultivate Unselfishness, Try to Develop Public Spirit and a Willingness to Co-operate.

So many things, apparently, are wrong in the rural churches, and in rural communities generally, that it may be a long, long time before ideal conditions shall exist. As in every other great sociological question, the first thing desired is a better understanding of the elements involved. This was, in a large measure, the result of the meetings in Commencement week, held under the comprehensive title: "Rural Church and Rural Life Conference."

The first session was held Sunday morning in the Congregational Church, where the Rev. M. B. McNutt, of Plainfield, Ill., pastor of the DuPage Presbyterian Church, spoke upon the subject uppermost in the minds of those present. Distance, lack of vision, of leadership, of self-sacrifice, of public spirit, of co-operation—all were blamable, Mr. McNutt said, for much that was wrong in the country.

Sessions were held in Anderson Hall Monday and Tuesday in which addresses were made by the Rev. J. H. White, pastor of the United Presbyterian Church, Manhattan; the Rev. A. E. Holt, Congregational Church,



President Waters.

Manhattan; President Waters; the Rev. D. H. Fisher, pastor First Presbyterian Church, Manhattan; Professor McKeever, Professor Kammeyer, Professor Holton; President Sanders, of Washburn College, Topeka, and several others.

The principal address of the week was by the Rev. M. B. McNutt, Monday night, at the interchurch banquet in Woodman Hall. His subject was, "Modern Methods in the Country Church."

Mr. McNutt said that perhaps the country church of the past was all that was needed in its day or was as good as the country people could afford. But the new era of scientific farming and the introduction of the modern comforts and conveniences into the country homes have brought a demand for and made possible better things for the rural churches.

The country church must work out its own problems from the country point of view. It needs to devise appropriate methods and to evolve and build up a type of life that will fit into

the needs of the country people as they exist. His church, the DuPage Presbyterian Church, is thirty miles west of Chicago and six miles from the nearest railroad. It is surrounded by no town or village—the church and manse stand alone on the open prairie. It is one of the oldest churches in Illinois. The people are an average country folk of Scotch, English, Irish, and German descent. When Mr. McNutt went there one of the elders, a farmer, had been preaching for three years, or until he died. The last minister had resigned with \$400 back on his salary, which amount the church borrowed to pay the debt. No one had united with the church for five years. A club house had been fitted up in the neighborhood for an organization that called itself "The New Era Club," the chief object of which was dancing. Many of the young persons of the neighborhood, including church members, were spending evenings there. The dancing element from the surrounding towns had also begun to frequent the place. The only service the church attempted was to open the doors Sunday for preaching and Sunday-school. Collections were taken once a year for missions and ministerial relief, and this was practically the extent of the benevolent work.

MANY ARE LIKE IT.

"The condition of this church at that time was not exceptional," Mr. McNutt said. "Other churches were, and are still, in the same plight. Some persons are saying the country church has outlived its usefulness, and that was and is true of the old type of country church. Many such have given up in despair and disbanded. Many others exist at the same dying rate.

"What was the matter with this country church? What is the matter with that type of country church? My diagnosis of the case is, simply, a lack of vision—and the want of adaption to the new needs. Many good preachers are failing in the country to-day for the same reason. They lack adequate conception of the needs—they fail to see the possibilities of country life.

"I resolved, first of all, when I went to DuPage, that I would get next to the boys and girls; that I would make that old church a great center of attractions. Notice, I did not say the great center. I do not believe in the church attempting to do everything or trying to do things that might better be left to other institutions. But a great center of attractions—a hub of joys, of happy memories and associations for that entire community. First, I organized an old-fashioned singing school. It might have been anything else just as well—a class in scientific farming. The singing school met one night in the week, in the church. There was good musical talent among the young folks and this new enterprise proved to be a great hit. Out of it grew a good, strong chorus choir, a male quartette, a ladies' quartette, and orchestra, and some good soloists. Besides, it improved the singing in the church and Sunday-school a hundred per cent.

"We began at once to observe all the special days—a dozen or more. This kept our musicians busy. And the first thing we knew the young people and many of the 'outsiders,' as they were called, were taking part in these

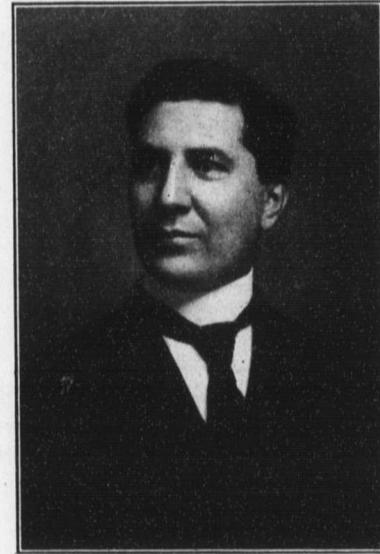
(Concluded on page 4.)

THE CALL OF RELIGION.

THE REV. C. G. CLARKE IN THE BACALAUREATE SERMON EXPLAINED ITS MEANING.

An Important Message for the Graduates of '11 from an Alumnus of Twenty-Three Years Ago—The College Man's Duties.

To come back after twenty-three years and give the final charge to a class ten times as large as that in which he was graduated, was the experience, last Sunday, of the Rev. Clement G. Clarke, '88, who preached the baccalaureate sermon to the class



Clement G. Clarke, '88.

of 1911. It was to be expected that in such circumstances the speaker would feel the impulses and emotions certain to arise with such influences—the earnest, kindly eyes of many old friends who had known him in his youth looking at him over the heads of the sturdy 210 in caps and gowns, getting ready to face the world. The Auditorium was crowded long before 4 o'clock, the hour for the sermon.

Mr. Clarke showed plainly, too, that all these influences had gripped him strongly so that he delivered his message, "The Call of Religion," with exceptional emphasis and fervor. It was a message to remember. The boys and girls before him, he said, were looking to the future, but he found it impossible not to look backward for a time, and with a feeling of tenderness, in thinking of the years he had studied in Manhattan, and the friendships formed here. He believed in religion and he believed in college men. The educated man, he declared, is more and more to be the spokesman of the future and religion the conserving force. He believed he would see the two united in the world's advancement. The stamp of religion would be upon the men of the future, upon college men.

The call of religion, to-day, the speaker said, is a call to educated men. It is a call consistent with the ideal and practical and the rational. Another thing in this call is righteousness, a passion for righteousness. The religion of Jesus Christ is consistent with every high ambition a student in college has to take home with him. Righteousness should be the ambition of every man. They should know wrong from right; they should know the men in public life who do wrong, and they should vote them out and not into public office.

"Who said there is no place for the Decalogue in American politics?" Mr. Clarke demanded. "Thank God

(Concluded on page 4.)



THE KANSAS INDUSTRIALIST

Issued weekly during the college year by the Kansas State Agricultural College, Manhattan, Kansas.

PRES. H. J. WATERS Editor-in-chief
PROF. C. J. DILLON Managing Editor
DR. J. D. WALTERS Local Editor

Except for contributions from officers of the college or members of the faculty, the articles in THE KANSAS INDUSTRIALIST are written by students in the department of industrial journalism, under the direction of Prof. Charles Dillon.

The typesetting and other mechanical work is by students in the school of printing, of which J. D. Rickman is superintendent. Both these departments are in Kedzie Hall.

Newspapers and other publications are invited to use the contents of the paper freely without credit.

The increasing demand for THE KANSAS INDUSTRIALIST makes it necessary to insist upon the payment of the regular subscription price, 50 cents a year, invariably in advance. No commission is paid any one for subscriptions, and no advertisements are accepted. The paper is sent free only to the alumni, to officers of the state, and members of the legislature. This rule will not be violated.

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SATURDAY, JUNE 17, 1911

WHAT WILL YOU DO WITH IT?

It is ended, now, the four years' work. It is your fault if you have missed. There isn't a man or woman in the world upon whom you can rightfully put the blame for one of your shortcomings. If you did the work well and faithfully you have the education you came to college to get. It is your big asset, the goods you have to show, your stock in trade—what will you do with it?

Time and again you've laughed at the well-meaning speaker in chapel who pointed out the duty you owed the state, but you don't feel like laughing now, do you? It has suddenly become a mighty serious business. You have some real concern, now, about the future. You begin to realize that there was truth in the message you thought so trite. It is a whole lot more important now than it was the morning you nudged your seat mate in chapel.

It seems impossible for anyone to miss the human interest, as newspaper writers call it, in the activities of Commencement week. It seems impossible for any man of depth and good common sense to view the scenes unmoved. For the first time, perhaps, you realize that here are more than 200 fine young men and women who have developed together, studying side by side, some of them for five years, going out, to-morrow, to try their strength, potential citizens of a great republic in which efficiency counts for more than at any time in history, in which men and women who can do things and do them right are more than ever in demand.

They are not the finished product, these graduates. They are just the best possible output that a great technical training school can give the world, an output that must be whipped into shape after it leaves the campus, brave and hopeful and bright of eyes, ready to grapple with anything that presents itself, listening eagerly for Opportunity's knock.

A spectacle, surely, to give one a new feeling toward his fellows, a keener interest in the students still to be graduated, a kindlier sympathy for some that may not find the road to learning so smooth as it is for the feet of others. Somehow you give way to strange impulses under the influence of the time. You find yourself wondering if, after all, it will not be possible for you to guide some of the hesitating feet that are taking the highway to-day through an unmapped land. It is such a big world, and there are so very many starting out into it every day, each with his little ambitions and plans and hopes; a big, big world that may prove to be so pitifully small for some. You may have smiled at such thoughts in other years, but you finish the day by full conversion to the student idea that there isn't anything under the beautiful, bending sky one half so important right now as Commencement week and "My Future."

Commencement means more than the finishing of two or three hundred students. It means new vigor for those who are in classes yet to be graduated.

It puts big ideas and ambitions into wavering minds; it makes boys and girls, still far from the coveted goal, put into their work a larger measure of energy; it gives them a clearer understanding of the purpose for which they have been sent to college. Surely no normal American youth could see those caps and gowns enter the big Auditorium, admired and envied by the hundreds that stood while they marched to the places reserved for them—the orchestra, college boys and girls, too, playing as they passed—the faculty and instructional staff paying deference with the rest of the world—surely that scene must have stirred into activity the best impulses in every boy and girl in the building, from sub-freshman to senior!

The glamor of it all can scarcely be understood by a man or woman who has not lived it. The responsibility resting upon the teachers of all these hundreds can not be weighed by an outsider. The pride of seeing boys and girls going out to earn their livings with what you have taught them, some succeeding, some failing; to see them come back, years after, and hear the stories they tell of fame or failure—that ought to repay a teacher for every pain, for every hour's trying labor; it ought to make him put a mighty high value on himself and the dignity of the work he has done.

The product a plant turns out fixes its value to the people. The two hundred or more students who left the campus, last Thursday afternoon, to come back only as alumni, are proofs, the goods, the product that justifies the people's confidence, the human dividends paid to the investors of the state. You can't overcapitalize a factory that gives such rewards. You can't overestimate its importance any more than you can put a false value upon Commencement week and the march of the caps and gowns.

It is all over, now, boys and girls—the four years' work. Wasn't it fine? Haven't you enjoyed every hour of it, looking backward with your added common sense? Wouldn't you like to live it again? It gave you the foundation for your future. It's up to you. You have the chance. What will you do with it?

BY WAY OF EXPLANATION.

Without any desire to reopen what, it was hoped, had become a closed incident, it has been deemed wise to print here an explanation of the editorial in THE KANSAS INDUSTRIALIST of May 27, entitled "Fifty Years Ago." In making this explanation it is impossible to maintain the impersonality which has been a consistent part of the paper's policy. A careful reading of the editorial referred to should prove how idle was the assertion that the writer suggested the "Ditching" of Memorial Day. It would prove that critics who declared an "attack" had been made upon the Grand Army of the Republic and its reunions had not read the editorial, or had deliberately misquoted it. It would prove, finally, that a deal of unpleasantness had resulted from what was, really, only a sentimental effusion absolutely lacking in any approach to disrespect for the organization which it seems, unhappily, has taken offense.

The writer, who prepared the editorial in question without any consultation with anyone, would be the last person to cast aspersions upon the Grand Army of the Republic or Memorial Day. His father fought for the Union and carried to his last day the marks of battle. His grave was decorated two weeks ago. It always will be decorated. For more than twenty years the editor of this paper has recorded the annual meetings of the surviving veterans. He has been connected throughout his life with interests constantly friendly to the old soldiers. He has marched more miles than they, perhaps, upon Memorial Days, in getting material to tell the world of their activities. It is absurd and malicious to put upon the editorial he wrote the stamp of unfriendliness for these men. It is worse to attempt to charge upon the college any responsibility for it. But no explanation ever overtakes the original item.

A GOLDEN TEXT.

Six days thou shalt work, but on the seventh day thou shalt rest.

And thou shalt observe the feast of weeks, of the firstfruits of wheat harvest, and the feast of ingathering at the year's end.—Exodus 34: 21, 22.

THE ROYAL PURPLE FOR 1911.

The class-book committee, this year, has produced an exceptionally handsome volume in the Royal Purple for 1911. It would be very hard to find more painstaking young persons, or any so eager to turn out a record of which the students and the whole college should be proud. While it is seldom wise to use superlatives, THE KANSAS INDUSTRIALIST believes it safe to say that the latest student volume will be found extraordinary in several ways. The pictures are particularly praiseworthy, especially in point of printing, and the text is a delight to read. There is hardly one whole page of foolishness in the volume, and no "jokes" that should mortally offend anyone familiar with college life. The cartoons are far above the ordinary. Indeed, there is not a sign of mediocrity in the book.

THE NEW CATALOGUE.

The importance of having facilities at home has been emphasized, this week, in the bright, attractive appearance of the new catalogue. With the state printer's plant crowded to the limit, it was comforting to know the catalogue could be printed in Kedzie Hall and finished in time for Commencement. Indeed, Superintendent Rickman's department has given numerous proofs of competence in the school year just closed—as it has done many times in the past. Mr. McNeal will have no reason to regret that he entrusted the catalogue to the college printing plant this year. It is a commendable "job," in printshop parlance, and especially welcome because it is a home product and, more than all, on time.

COMMENCEMENT DAY NOTES

A Few Lines About the Exercises and the Visiting Graduates.

Two of the faithful were much discussed among the alumni: H. C. Rushmore and I. D. Graham. Mr. Rushmore lives in Kansas City, Kan. He has attended thirty-one Commencements. Mr. Graham has been here for thirty-four such ceremonies.

The ball game, Thursday afternoon, was an interesting contest. The alumni—some of the former stars—recorded four runs in the first inning. But in the "Lucky Seventh" the college team found its wind. The score was 8 to 7 in favor of the college. The batteries were: Alumni, Lewis and Aicher; college, Baird, Stack, and Billings.

Hardly a visitor left the campus without going to see the fine exhibit of domestic art work in Miss Becker's department. It held President Waters and the regents for a half hour, and it was worth a day's study. The exhibit included street and house dresses, underclothing, "fixings" such as laundry bags, slipper holders, and, as the English say, "all that sort of thing." The industrial display of silk, cotton, and wool, thread, knives, scissors, and buttons was excellent.

It was only a few minutes after the battle, Thursday afternoon, before all the dead and wounded were under cover. The engagement was extremely exciting. At one time the "people"—small ones—got in between the opposing forces in search of empty shells and the war had to be stopped until the field was cleared. Captain Boice observed all the humane essentials of warfare in handling his men and throughout the attack.

The Y. W. C. A. girls served the Alumni-Faculty banquet Thursday noon.

Colonel "Jack" Brady isn't an alumnus, but no old student could be more loyal to the college. He's ready to get out and yell now just as he did in 1782—or was it 1882?

THE DAY'S BIG EVENTS.

How the Program was Arranged, and the List of Degrees Conferred.

This is the general program as it was arranged for Commencement Day, Thursday, June 15, with the names of students upon whom degrees were conferred:

March, "Royal Purple" Westphalinger "Andante Religieuse" Massenet

College Orchestra

Invocation The Rev. Drury Hill Fisher, A. M.

Overture, "Zampa" Herold

College Orchestra

Annual Address "America's Second Opportunity"

Edward Benjamin Krebsiel, A. M., Ph. D.

Associate Professor of History,

Leland Stanford University.

"Holy Art Thou" Handel

College Glee Club

GRADUATES BY COURSES.

AGRONOMY.

Ralph W. Edwards Walter S. Robinson

Harley M. Hunter Lawrence Osmund

Jay Kerr Newell S. Robb

Hilmer H. Laude Matthew C. Stromire

Frank D. McClure Andrew J. Wheeler

Clyde McKee* Clarence Wheeler

Robert C. Moseley Casper A. Wood

Charles Mycka Wilbur Zacharias*

ANIMAL HUSBANDRY.

Oscar Crouse Harvey G. Roots

Abner E. Engle Edward H. Schroer

Edwin H. Grandfield Harry E. Skinner

Ralph E. Hunt Edward P. G. Small

Edward Larson Richard Smil

Bert J. McFadden George E. Thompson

David B. Osburn Oscar T. York

DAIRY HUSBANDRY.

William A. Barr Edgar R. Stockwell

Harry A. Fearey Edgar L. Westover

Yojizamen Hashimoto Owen E. Williams

Carl Irwin* Charles Zoller*

HORTICULTURE.

Benjamin B. Baird Mauricio J. Oteyza*

Donald F. Jones

VETERINARY MEDICINE.

Lebbeus B. Barber Thomas E. Henry

James W. Benner Benjamin W. Hollis

Roscoe A. Brauson Sylvanus E. Houk

Robert V. Christian Harold D. O'Brien

Joseph H. Coffman John E. Watt

Lewis A. Hammers Glenn E. Whipple

MECHANICAL ENGINEERING.

William A. Brunker George P. May

Lewis B. Bouton Thomas M. Parker

Clifford H. Carr Silas M. Ransome

George S. Croyle George T. Ratcliffe

Paul Guy* Charles E. Reed

Herman H. Harbecke Ross H. Reynolds

William L. Heard Dave G. Roth

William C. Hosick John Schlaefli

John E. Jenkins August W. Seng

Fred W. Krotzer Homer H. Sloan

John E. McDowell Alden Strong

CIVIL ENGINEERING.

Raymond C. Baird Benjamin O. Johnson

Harrison Broberg Arthur L. Kahl

Walter Van Buck Fred C. Maybach

Doy R. Coleman Percival B. Potter

Urafa A. Domisch Lyle P. Price

George R. Elliott Worth D. Ross

Earl L. Hageman Philip C. Vilander

Charles Hennion Noel H. Walton

William B. Honksa Harrison W. Willson

ARCHITECTURE.

Alexander T. Bodie Roy Kilmer*

Henry W. Carr Ira T. Koogler

Frederick D. Elliott Kirby K. Wyatt

Frederick S. Hopper

PRINTING.

Aaron E. Anderson Harlan D. Smith

William H. Goldsmith Clifton J. Stratton

Martin T. Laude Oley W. Weaver

HOME ECONOMICS.

Effie Adams Margaret D. Morris

Amy E. Banker Mary Morris

Ethel R. Barber Flora H. Morton

Myrtle R. Bayles Lucy Needham

Clara A. Bergh Edythe B. O'Brien

S. I. Case Dora M. Otto

Mary I. Cotton Hazel M. Parke

Winifred E. Cowan Mary R. Parsons

Bertha M. Davis Clara M. Peters

Goldie G. Eagles Bertha E. Phillips

Florine E. Fate Bertha L. Plumb

Lucile M. Forest* Edna Pugh

Mary Gabriezon Olga M. Raemer

ALUMNI NOTES.

Roy M. Johnson, '10, is farming at Mankato.

Leon Davis, '09, Berkeley, Cal., spent the week at the college.

C. L. Zoller, '10, Kirwin, Kan., was a Commencement visitor. Mr. Zoller is farming.

Maude Estes, '10, is teaching domestic science in the Junction City high school.

Mae Macloud, '10, has returned from Texas, where she has been teaching domestic science.

Lucille Forest, '10, Thayer, Kan., will teach domestic science next year in the Leroy high school.

Stella Ballard, '10, will teach domestic science next year in the Washington, Kan., high school.

Louis Aicher, '10, director of the Idaho experiment station, was in Manhattan for the graduation exercises.

Lillian Lowrance, '10, who is teaching domestic science in the Independence, Kan., high school, spent the week in Manhattan.

Margaret Justin, '09, who has been teaching in a mission at Clarkson, Miss., has returned to Manhattan for the summer vacation.

Maybeth Robinson, '10, Manhattan, and Harry Fearey, '11, were married the evening of Commencement day. They will live in Idaho.

Ethel Mosley, '09, Alma, Kan., has been teaching Domestic Science in the Girls' Industrial School at Beloit, Kan. She is to teach, next year, at Hiawatha, Kan.

Elizabeth Cassel, '09, who has been teaching domestic science in the University of New Orleans, has returned to spend the summer vacation at her home in Manhattan.

C. I. Weaver, '06, and Laura (Lyman) Weaver, '06, were here from Chicago for Commencement. Mr. Weaver is in charge of the Chicago office of the Westinghouse Electric Company.

Wilma D. Evans, '09, has had a very pleasant year teaching domestic science in the city schools of Houston, Texas, and will return for another year's work there. This work is begun in the fourth grade of the Houston schools, and Miss Evans has had 365 pupils under her instruction.

L. B. Mickel, '10, Soldier, Kan., formerly telegraph editor of the Springfield (Ill.) *Evening News*, has left that paper to work for the United Press Association in the Chicago office. Mr. Mickel was the first student graduated from the agricultural college with a diploma from the printing course.

W. O. Peterson, '97, was graduated with first honors from the Kansas City Baptist Theological Seminary May 18. He was ordained in the Baptist church at Clyde, of which he is pastor, June 1. Dr. Stephen A. Northrop, pastor of the First Baptist Church of Kansas City, Kan., preached the ordination sermon. The Rev. J. W. Bayles, '88, gave the charge to the candidate.

Margaret Justin, '09, has been having interesting and exciting experiences as teacher of domestic science and household manager in a Methodist missionary school near Clarkson, Miss. The Bennett Home is situated about eight miles from the city, and valuable work is being done among the children of the mountaineers of that district. Miss Justin will return for another year's work in the Bennett Home.

LIKED THE SENIOR PLAY.

"At the End of the Rainbow" Filled the Requirements Admirably.

The senior class play, "At the End of the Rainbow," pleased a crowded house at the Auditorium Tuesday night. There was not much plot to the three acts, but enough good music and lively scenes to keep the actors moving and the crowd interested. Mrs. Mary Simmons' characterization of the victim of the "yellow newspaper" drew the most applause from the crowd. John Z. Martin and Merle Sims got away good with their solos. Edna

Pugh and Clay Lint masqueraded pleasingly as butler and maid. A mixed chorus between acts and the Royal Purple March, composed for the class book by George A. Westphalinger, were encored.

FROM BONNIE SCOTLAND.

An Edinburgh Man Will Attend the Kansas State Agricultural College.

Scotland will be represented at the Kansas State Agricultural College next fall by William Histop, of Edinburgh. He was graduated from the University of Edinburgh this spring. He desires to take advanced work in crop production and animal husbandry and chose the Kansas State Agricultural College.

Agricultural schools in Scotland teach theory only. They do not have laboratories and farms where students may practice the new ideas that they learn, as does the Kansas State Agricultural College. All is book work. Actual practice does not come until after graduation, there.

COOKED BY THE GIRLS.

FIVE COURSES EXCELLENTLY SERVED AT THE JUNIOR-SENIOR BANQUET.

Instead of a "Prom" the Students Enjoyed Themselves Eating, After Which the Class Crook was Carefully Transferred.

The junior girls are a fine, cheerful lot, aren't they? Did they sulk and pout and refuse to do a thing when it was decided that a "Prom" would be impossible this year? They did not. They cooked something good to eat; all of which explains the reason for the Junior-Senior banquet, Saturday night, June 3.

It was a real banquet, too—not a luncheon or refreshments—five courses of it and every bite served in the best possible fashion. Of course these junior girls know how to cook; haven't they been cooking all winter and spring in the Domestic Science Building for the hundred seniors in the table manners course? Rather. So

the chief event came the serving of punch in the reception-hall.

The special feature of the Junior-Senior banquet was the handing down of the shepherd's crook. If you've never been in college you can't possibly value this incident at its real worth. This, without any desire to be facetious, is the only crook in college. It originated in 1898. Previously to that the graduating class had treasured a nickel-plated spade as the particular object to be passed from one class to another. No one knows his name, but true it is that some misguided student purloined the spade in 1895 and—so tradition says—flung it into the Blue River. It was never seen again.

After that, for no reason that anyone will give the eager world, a crook was bought. That was in 1898, and every subsequent class, except that of 1900, has put its colors on the shepherd's staff. The class of '00 would have hung its colors with the others had it not been for some other barbarian getting in first and stealing the

HOW TO SAVE MILLIONS.

RECLAIM THE WET LANDS OF KANSAS, SAYS DRAINAGE ENGINEER.

Surprising Figures from H. B. Walker, Who Traveled 7500 Miles and Visited 93 Farms in Eight Months.

Proper reclamation of the wet lands of Kansas would mean from 15 to 30 million dollars annually in increased farm products. This would be enough money, if properly invested, to pay for draining the entire wet land area in two to five years.

In the last eight months, H. B. Walker, of the state agricultural college, drainage engineer, has visited 93 farms and five drainage districts, looking after the reclamation of the wet lands of the state.

Drainage conditions in 30 counties in the eastern part of the state were studied. A distance of 7500 miles was traveled. More data is being taken by the drainage engineer as rapidly as possible.

Think of 6000 square miles of land in Kansas, the best in the state, agriculturally, that is not cultivated profitably on account of excessive moisture! These are the figures of the drainage engineer.

Such an area would include a strip 20 miles wide, extending from the north to the south border of the state—an area almost as large as Connecticut. In some instances the reclamation of these lands may be brought about by straightening and deepening the river channels, or by tile drainage.

The organization of drainage districts, or co-operative drainage, is necessary where it is attempted to straighten a river course or deepen the channel. The undertaking is too large for a single landowner to care to assume the responsibility, or the trouble. Tile drainage projects are usually private improvements. It is a new undertaking in Kansas, but where proper systems are constructed the results have been successful.

The wet lands of the state are good agricultural lands—good for corn, wheat, or alfalfa; land that will produce maximum yields. All they need is draining. Farmers in the overflow districts along the river valleys cultivate their crops in a half-hearted way because they have no assurance that they will harvest a crop.

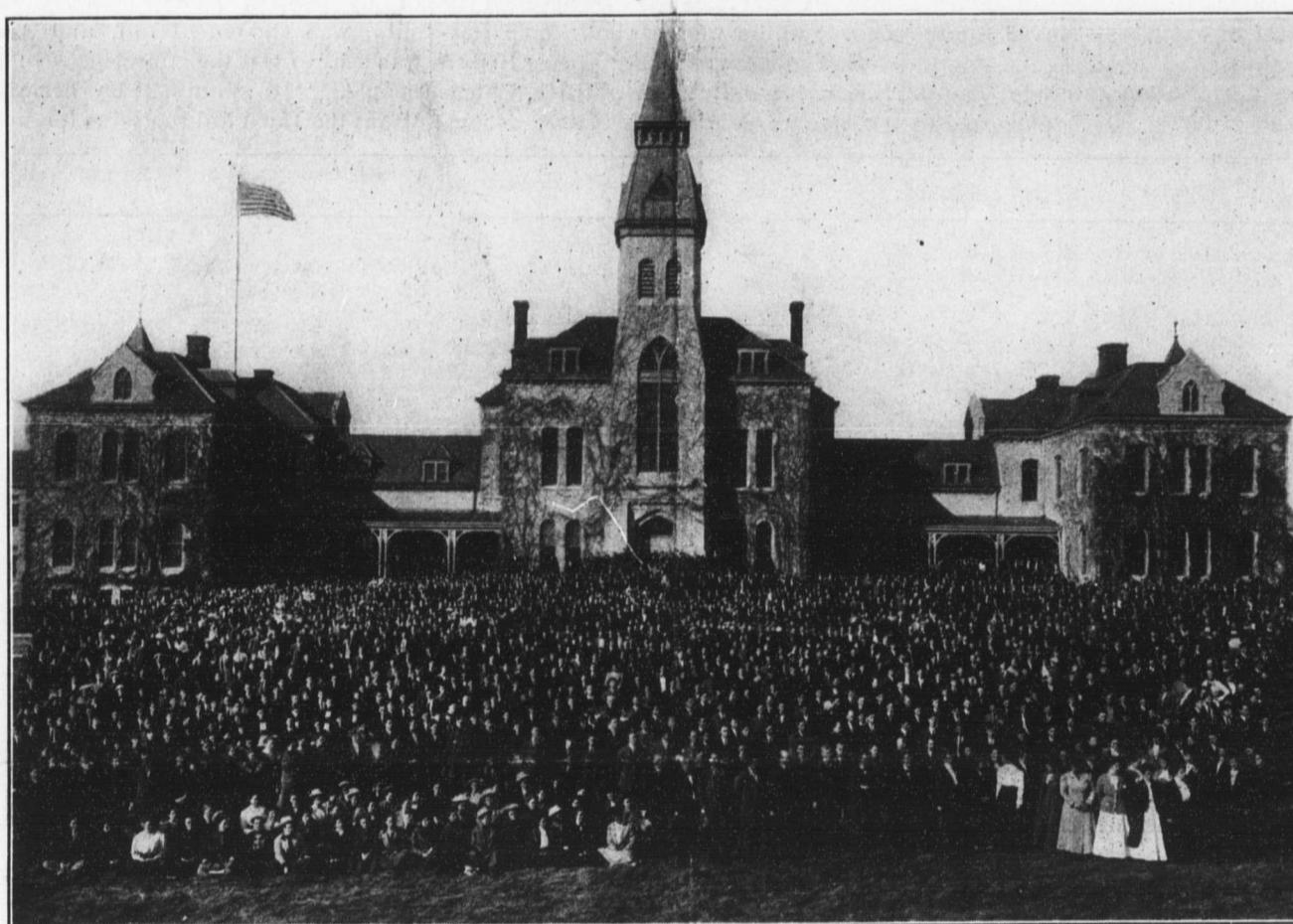
PEACE HAS ITS HEROES.

(Concluded from page 1.)

sume this leadership. The Asiatic nations cannot do so, for the world regards them as inferior. America is the logical candidate. America has, through its policy of keeping out of the current of international politics, avoided the rivalries and hatreds which sway the foreigner. Within its boundaries it has representatives of practically every people of earth—it is already cosmopolitan in character, the world's "melting pot." In addition, having improved its first opportunity, America has proved its ability to assume the leadership in great causes. This is the second opportunity: To demand that our country continue in the course it has entered, and lead the world to universal peace."

The Faculty Won the Game.

The annual athletic contest between the seniors of the college and the faculty took place Saturday afternoon. Professor McKeever ran against R. V. Christian and was outclassed. The ball game proved very exciting in many places. Headlee and Conrad made the battery for the faculty and Ray Anderson pitched for the seniors. The score at the end of the game was 7 to 4 in favor of the faculty. Such persons as Dean Brink, Custodian Lewis, Professor McKeever, and others made the game move fast. Headlee slid to third. The tug of war was won by the seniors.



Two Thousand Future Citizens of Kansas—Count Them.

HAD A CAMPUS BREAKFAST.

The Class of '11 Was Out Early for its Last Meeting.

More than 200 figures in caps and gowns—the class of 1911—met under the trees shortly after 6:30 o'clock, Wednesday morning, near the spot where the May-pole stood, six weeks ago, for a breakfast on the grass. It was a happy crowd to which President Waters spoke when he arrived two hours later—happy to be free and happy to be starting into the world on its own account. Here is the program:

PROGRAM
6:45 a. m.

Breakfast.....Campus
Class History.....Clif Stratton
Class Prophecy.....Oley Weaver
8:30 a. m.

Dedication of Arch.....H. Clay Lint
Response.....Pres. H. J. Waters
9:00 a. m.

Division of Home Economics.....Dean Mary VanZile
Demonstration by Departments
9:30 a. m.

Division of Agriculture.....Dean Ed. H. Webster
Demonstration by Departments
9:45 a. m.

The College.....Dean C. M. Brink
10:00 a. m.

Chapel.....Auditorium
Overture.....Orchestra
Alma Mater.....Everybody
Devotion.....H. Ray Anderson

Announcements.....Winnie Cowan
Solo.....John Z. Martin
Talk.....Neil Hickok
Quartet.....Senior Girls

Talk.....Harold D. O'Brien
March.....Orchestra
11:00 a. m.

Division of General Science.....Dean J. T. Willard
Demonstration by Departments
11:20 a. m.

Division of Mechanic Arts.....Dean E. B. McCormick
Demonstration by Departments
11:45 a. m.

Musical Program.....Auditorium
Department of Music

Try putting pancake batter in a pitcher and pouring it out to bake.

when it came down to providing provender for the big meal—310 persons—the girls were at home in the kitchen.

Punch Gele

Pai de veau — Saratoga Chips
Pickles — Olives
Sandwiches —
Salade — Wafers
Ice-Cream — Cakes
Cafe Noir — Opera Sticks

No doubt in the world that you all know *Pai de veau* when you see it,



The Crook of 1911.

and *Punch gele*; both were there, big as life, and busy. Of course everyone called it veal loaf and enjoyed it without reference to the French name. And the sophomore and freshman girls served without a hitch. Indeed, there was no reason to expect a hitch; those girls had had the right kind of instruction; they knew how to do the things that were to be done. After

WON 16 OUT OF 19 GAMES.

AGGIES MADE GOOD SHOWING—BROKE EVEN IN MISSOURI VALLEY.

Out-Hit and Out-Fielded Opponents—Price Leads Batting List—Seven K men Play Their Last Season—Prospects for 1912.

The Kansas Aggies won sixteen out of the nineteen intercollegiate games played this season. The University got away with two of a four-game series played under Missouri Valley Conference rules—that is, the Aggies played under Missouri Valley rules. To break even under the strict rules of the big conference was doing better than the most enthusiastic fan had hoped. A Quaker named Trueblood, pitching for Friends University, gets the credit for the loss of the only Topeka Conference game that went to the wrong side of the column.

SEVEN MEN WITH K.

Seven K men will be graduated this season. Harry Baird, pitcher; Judd Stack, pitcher; Leo Price, second base, and Whit Speer, catcher and outfielder, have been with the team four years. Roy Meyers has played third for two years; Dad Croyle and Ed Larson won their K's this spring.

The season opened with the Missouri Valley team in the field. Young and Billings were the only veterans eligible. Excellent pitching by Pollock and Hall gave an even break with K. U. After the games with the University the Aggies wandered through the Topeka Conference teams at will until Friends University slipped one over in the ninth and won, 5 to 2.

The contest for batting honors is close. McCallum, the Kansas City, Kan., high school lad who has been playing short, took the lead early in the season and kept it until the last trip, when Price recovered his batting eye and came home four points in the lead. His average is .338. McCallum with .327 and Billings with .308 are still in the race, and with one game to play one of these might beat Leo out.

FOR NEXT YEAR.

Next year ought to see one of the best-balanced teams in the history of the college. Cleland, Wolcott, and Hunt can take good care of the gardens. Young, Vadakin, McCallum, Beeman, and Pollock are promising infielders. Billings ought to be the best college catcher in the state next season; Pollock and Hall both have shown indications of having ability.

Here are some figures gathered from the official score-keeper's records:

Summary of Intercollegiate Games.

	Games Won	Fielding Average									
Opponents	At Bat	Runs	Hits	Sacrifice Hits	Stolen Bases	Average	Put Outs	Assists	Errors	Efforts	At Bat
K. S. A. C.	633	143	165	18	118	.261	494	228	90	889	16
Opponents	633	91	140	4	23	.211	480	248	99	880	3

THE CHURCH CAN HELP.

(Concluded from page 1.)

special services. They just couldn't keep out. And, of course, the fathers and mothers had to come to hear their children sing and play and speak—and likewise the doting grandparents and uncles and aunts and cousins and sweethearts all had to come. Next we started what we called a gospel chorus. Got some live new song books and went singing around from home to home. An athletic association already existed. We encouraged the boys in their field-day sports. Two or three baseball teams were organized. We played successfully many of the surrounding towns.

"The church building was not suited for social gatherings, so a series of sociables was planned at the homes. These were not the money-making kind—they were sociables indeed. The older persons often attended and engaged in the play with the young folks. Refreshments were served free. Young folks and old became well acquainted. And such fellowships! Such friendships! Such companionships! And all centering in the church.

"The 'Girls' Mission Band' was organized and met once a month. In these little gatherings were combined

the devotional, social, educational work and club features. After the program the girls would sew and make garments for the poor in the city. We began work for the young men by organizing a class in the Sunday-school called 'The Young Men's Bible Class.' It has fifty members. The young men conduct a lecture course, and have introduced and support a bureau of publicity. The boys invested in a small printing press. With the help of the pastor they do all the church printing and issue a local church paper.

"You are wondering what became of the dancing? Well, they forgot all about it in about two years. There has not been a dance in the New Era hall for more than eight years. The building stands idle and is crumbling to ruin. The pastor never mentioned dancing in the pulpit or to one individual in private. It simply was starved out.

"Eventually, this church outgrew the old building. It erected a new one costing, including furnishings, \$10,000 in money and the equivalent of another thousand in hauling, which the farmers did gratis. Practically all the money was subscribed before a shovelful of earth was moved for the foundation.

"The new library already has a thousand volumes. It is purposed to

ELIJAH WAS WELL SUNG.

THE CHORAL UNION'S SEVENTH ANNUAL CONCERT A HIT.

That is to Say the Audiences Gave Every Necessary Proof of Their Approval—Professor Valley's Fine Organization.

Nothing could have been more appropriate, under the existing conditions, than "Elijah," the oratorio so excellently sung, Wednesday night, by the choral union of the Kansas State Agricultural College. Evidently—to judge by the smiles—the same idea was uppermost in many minds when the big chorus sang:

"Look down on us from heaven, O Lord; regard the distress of Thy people; open the heavens and send us relief; help Thy servant now, O God!"

The entire performance was worthy of a permanent organization and unusually well done for one that changes several times in a year. The solos, of course, were admirable, but the ensemble was really extraordinary in quality.

The production was directed by Professor Valley. Those who assisted the choral union were Mabel Sharp Herdien, Chicago, soprano; Grace Brown Slack, contralto; J. B. Miller, Chicago, tenor; Miss Mell Hutto, accom-

THE CALL OF RELIGION.

(Concluded from page 1.)

there are men in Kansas, to-day, who have found a place for it. No man should be in public life who does not admit the authority and the righteousness and the justice of the great injunctions: 'Thou shalt not—.' The sermon on the mount belongs in politics to-day, and, moreover, it must be brought up to date. 'Thou shalt not kill' does not mean, necessarily, the foreigner who uses a stiletto. It means the railway man who refuses to fix a weakened bridge so that dividends may be paid on watered stock. 'Thou shalt not steal' does not refer always to some unhappy Jean Valjean; it means monopolies that crush and grind and starve. If Jesus were to come now and preach another sermon on the mount he probably would add, 'There shall be no more rebates and no watered stock and no more of this and of that in modern society.' If religion is to be vital it means we must carry it into every department of life."

"I will set a plumb-line in the midst of my people, Israel," Mr. Clarke said, was spoken of old, and Amos was sent to test the consciences of the people. "It seems," he declared, "that the Lord did the same for us in

THE ALUMNI WAS HAPPY

MANY STORIES OF OLD TIMES TOLD AT THE ANNUAL BANQUET.

Two Hundred or More Were Present and Some of the Early-Day Graduates Spoke—Leisure of '77 a Star.

Even if you never had been in college you certainly would have enjoyed the stories told at the Faculty-Alumni banquet, Thursday noon. Looking at the Kansas State Agricultural College now, with its 2500 students and an instructional staff of about 140, it is easy to see how the old-timers were impressed with the changes, and to understand the spirit in which they told the tales that began: "I remember when—."

Two hundred alumni and probably a hundred former students and "outside" visitors attended the banquet. At the head table were President Waters and Mrs. Waters; W. E. Blackburn, representing the board of regents; Dr. Edward B. Krehbiel, Commencement day speaker; A. L. Sponser, M. M. Sherman, and Edwin Taylor, regents; Dean Webster; the Rev. Drury H. Fisher; John U. Higinbotham, Chicago, and Mrs. Scott Higinbotham, Manhattan; Mrs. Mary Pierce Van Zile; Miss Ella Weeks, and Professor Dickens. Those who spoke, briefly, were: Dr. E. B. Krehbiel; Marion F. Leisure, '77, La Cygne, Kan.; P. C. Vilander, for the class of 1911; John U. Higinbotham, '86, Chicago; E. H. Freeman, '95, Chicago; W. E. Blackburn, and Colonel "Jack" Brady, a student of the early '80's.

Marion F. Leisure was a student in old Bluemont college, of which John A. Anderson was president. Mr. Leisure told in an exceedingly interesting talk, how he moved with the college from the hill, Bluemont, to the present site of the college, when it became an agricultural college under the federal land grant, or Morrill, law. The building then used was a barn, now, and for many years the armory. He helped others to take the bell from Bluemont to the armory where, for years, it rang its usual call to classes. Later this bell was taken to Anderson Hall, the administration building of the college, where it still hangs.

Mr. Leisure told of the excitement and delight when John Anderson got an appropriation from the legislature of \$18,000. With this money he built the Chemistry Building—the little structure now the Women's Gymnasium—and the old Horticultural Building—now a store house—and the central part of the machine shops. The college then had 250 students.

The alumni was entertained in the evening at an informal reception in the Women's Gymnasium. By Friday noon the last of the visitors had departed.

laureate message. Your friends, your college, your state are looking now to you, and their summons is the same as the summons of religion."

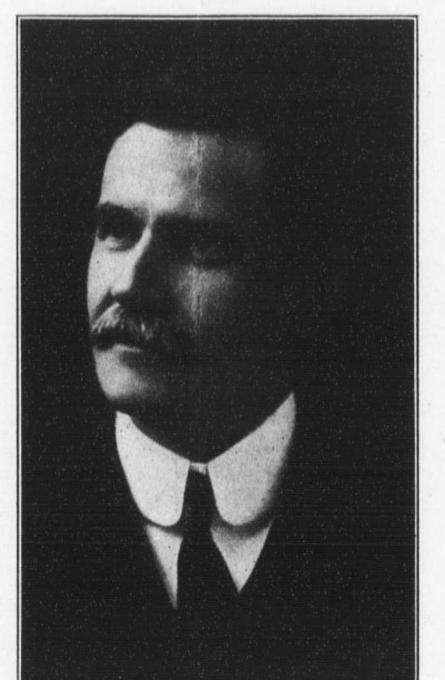
THE HONOR STUDENTS.

Oscar Crouse Was the First Senior, Eugene Maroney First Junior.

At the close of the Commencement exercises Thursday morning President Waters announced the student honors in the senior and junior classes.

Senior class—Oscar Crouse, Ralph Morris Caldwell, William Benjamin Honska, Frank Erwin Fuller, Donald Forsha Jones, Miss Florence Snell, Miss Alice Mary Keith, George Eldon Thompson, Miss Myrtle Ruth Bayles, Victor Homer Florell, Miss Mary Russell Parsons, and Miss Kate Maria Penn.

Junior class—George Eugene Maroney, Miss Ruth Edgerton, Russell Fuller, Thomas Arthur Case, Miss Pauline Kennett, Albert Yeager, Earl Harrison Martin, Miss Elizabeth Aberle, Miss Mary Catherine Williams, William Edward Stanley, Oliver Morris Franklin, Edgar Allen Vaughn, Henry Schmedler, and Warren Earl Simonson.



The Rev. M. B. McNutt.

standards they wish for themselves, and to coöperate with all the allied forces for rural betterment, especially the agricultural colleges, the schools, the Grange, and the Christian associations.

Enlarge the corn and clover acreage, and thereby enlarge the wheat, barley and flax production of your farm.

putting Roosevelt into the presidency. When I heard Woodrow Wilson, a few days ago, I could not resist saying, "Is this another Amos?"

Another feature of the call of religion, the speaker said, was the call to vicariousness, to self-sacrifice. There is no place, to-day, he declared, for the selfish man; not in the church, or in school, or in politics, or anywhere else can he find rest and welcome. No one, he said, was fit to have a diploma who did not go out saying, "In Christ I live."

Here is the charge given by Mr. Clarke to the graduates, standing:

"I have voiced the 'Call of Religion,' but you will have seen that I mean by it the same as the call to life—life with the biggest interpretation, under God and answerable to Him.

"Let me say three things: If the Christian religion is thus big in value, worth while, and full of reality, let us, as college men and women, stand by the instrument with which it is to be propagated—the Christian church. If the church to-day is not all that we would have it, instead of deserting it, let us enter it to make the needed changes. We want from college men and women neither the superciliousness of a blasé liberalism nor the closed mind of an unmoving conservatism. We want the humble, open mind, teachable and free, and that spirit carried by the educated men into the church as it is can make the church what it ought to become.

"The door swings open: Enter the door! Beautiful and fair as this day in June is the Commencement day's prospect for you. Enter it for character and achievement. 'Happiness enough to get one's work done is all the happiness a brave man seeks,' said Carlyle. Nothing less than one's absolute best will enable him to get his work done. Purpose and enthusiasm and persistence belong to the bacca-